

# Public Education 2030

**The Singularity Approaches**

**A Prequel**

**Michael C. Bock**

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*The Singularity Approaches*

Michael Bock

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# Introduction

The essays in this book originally were written as web-posts. They show the point of view of a retired public school teacher who very much wants public education to succeed and who appreciates the hard work of the many talented teachers, administrators and board members in the present system. The message of this book, however, is that public education is in need of a major overhaul. The system of public education is poorly designed; its goals of public education are too narrow; and as it is, even the highest rated schools are accomplishing way too little.

Most schools post nice sounding goals about developing student potential and forming solid citizens, but, the fact is, schools do not expend their resources on accomplishing these admirable aims. Because of the No Child Left Behind law, schools obsess over government school evaluations and focus their efforts on accomplishing just one goal — producing acceptable test scores. The narrow aim of raising test scores has become the controlling mission of public schools and, to accomplish this mission, school time is precisely controlled, curriculum carefully aligned, and the definition of “good teaching” narrowly defined.

Schools are stuck in the business of *schooling* — transmitting curriculum, grading, preparing for tests — but to fulfill the wonderful goals posted on their websites, schools would need to be in the business of *education*. It is a great thought that schools should help each child achieve his or her potential, but a school designed to accomplish this goal would need to be built on a solid theory of motivation and on an enriched understanding of human nature now largely absent in today’s schools. A school focused on helping students fulfill their potential would need to empower and free both teachers and students in ways that seem unthinkable in the present system.

I’ve entitled this book *Public Education 2030, The Singularity Approaches* because the big point I hope this book will communicate is that we need to be forward looking. We need to do the hard work of building a new system capable of sustaining our democracy; we need to build a system equipped with the capacity to successfully meet the challenges of the future. The term “singularity” is taken from the writings of futurist Ray Kurzweil,

an acknowledged genius with over 17 honorary degrees, who predicts that a coming revolution in technology will create a world for today's children astonishingly different from the world of their parents and grandparents. To thrive in the transformed world in which they will live, children will need a transformative education that will lift them to a full development of their humanity. The qualities of thoughtfulness, leadership, creativity, and character that seem exceptional today will need to be commonplace tomorrow.

This book points to these conclusions:

- The aim of public education must be the advancement of the common good, which means — 1) Each child will acquire the tools and experience needed to develop his or her potential, and 2) Each child will gain the knowledge, habits, temperament, and character that will empower him or her to be an effective citizen.
- The system of public education must be restructured so that all the resources available to the system will be focused on accomplishing the aim of the system.
- The transformation needed in public education will require a vitalization of local democracy resulting in communities regaining local control of their schools.

This book does not attempt to show what a transformed system of public education might look like. The goal of this book is twofold: 1) To make the case that a redesign of the system of public education is needed and 2) To invite readers to enter into brainstorming conversations about the future of public education. I hope these essays will be helpful in promoting thoughtful dialogue. I am posting this book on a new web-site — [OhioTownHall.com](http://OhioTownHall.com). — where ideas for restructuring eventually also will be posted. You are invited to join me there.

Sincerely,

Michael Bock  
Kettering, Ohio  
May 1, 2013

## Message From the Author

I taught high school math in a public school for over thirty years, mostly in West Carrollton, a district adjacent to Kettering where I live. Over the years my conviction grew that what holds back progress in public education is the fact that, structurally, the system itself is very flawed. I became convinced that teachers, for the sake of their profession, should advocate system restructuring. In 1991, as an officer in our teachers' union, I helped negotiate the formation of a Quality Committee charged with making recommendations concerning system change. The committee included students, teachers, administrators, board members and other citizens.

Our Quality Committee studied the work of [W. Edwards Deming](#), whose writing most influenced my thinking. Deming emphasized that in order to reach new levels of quality, organizations need system transformation. The committee had trouble reaching agreement. Regardless that the committee's recommendations were very modest, predictably, the report it produced was put in a file cabinet and, I guess, remains there to this day.

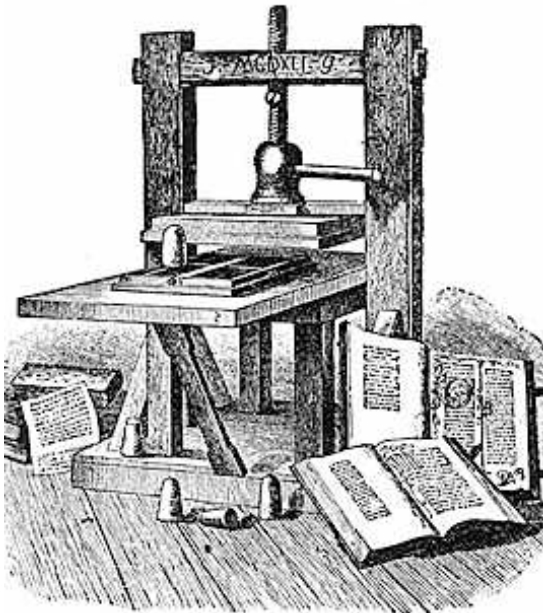
What I learned from the Quality Committee experience is the fact that status quo has powerful constituencies and that the only chance for transformation in public education is via action by an elected board. So, four years ago I put my name on the ballot as [a candidate seeking election](#) to the Kettering School Board. I had a shoestring budget and I vastly underestimated the difficulty and expense of communicating a complicated message to a community of 56,000 residents. I was not surprised that I lost, but I was surprised at how difficult it was to deliver my message.

This November three Kettering school board members are seeking re-election and I'm pondering if I should enter the contest. My motive is not so much that I want to be an elected official as the fact that I want to influence the discussion. I am posting this book and starting OhioTownHall.com in the hope of generating thoughtful dialogue and in the hope of bringing together a coalition of citizens that together might influence the future of public education in their own communities.

Mike Bock

*Part One*

# *The Singularity Approaches*



# As The Singularity Approaches, The Aim Of Education Must Be: Awake, Get Ready

May 30th, 2011

[Ray Kurzweil](#) in *The Singularity is Near*, says we are at the cusp of astonishing scientific and technological progress. Kurzweil predicts that within 35 years, computers will be “billions of times more intelligent than humans,” and will have the capacity to solve every possible problem. Unfortunately, these brilliant computers also will have the capacity to create a hell on earth.

Kurzweil advances an almost religious message: “Wake up. The Singularity is near,” reminiscent of Jesus’ message 2000 years ago: “The Kingdom of Heaven is at hand.” Both messages proclaim good news, but both also warn the listener that he or she must prepare for a watershed event in human history. Jesus warned, if there is no oil in your lamp, you will miss out on a great opportunity.

Throughout history, humanity has organized itself so that a dominant group will enslave a weaker group and will control the limited resources and treasure of the whole society. Old Europe, for example, created a social system where most of the property and wealth was owned and controlled by the royals — dukes, earls, barons — and the rest of society owned little or nothing. But suppose in the near future there is unlimited wealth, unlimited opportunity? Then, what? This seems a crazy question unless you believe: THE SINGULARITY IS NEAR.

Those with power seldom give up power without a fight. The astonishing emergence of the Singularity predicted by Kurzweil will cause big disruptions in the overall power structures within the world, and the final result could be either crushing repression or greatly expanded freedom. Only a vital democracy can have a chance to successfully negotiate the great perils and the tremendous opportunities of the future.

Suppose Kurzweil's vision of the future is correct. In order for humanity to fully benefit from the wonderful opportunities that a transformed future of limitless potential will bring, humanity itself must become transformed. And the best hope for a transformed humanity is via a transformed system of education.

# Some Experts Welcome A Future Where Teaching Machines Dominate Education

*May 17th, 2011*

Last year, 2010, the [Hoover Institution](#), a conservative “think tank”, challenged its members to think twenty years ahead, and to [imagine public education in the year 2030](#). A number of the institution’s fellows made a [video response](#). According to Hoover, **“The changes outlined here (in the videos), if implemented, would yield a more responsive, efficient, effective, nimble, and productive K–12 education system than we have today.”**

Who would not want a more responsive, efficient and nimble system of public education? The sticking point of possible disagreement centers on system purpose. What drives public policy now is a consensus view that the purpose of public education is the transmission of skills/knowledge and that this purpose is best accomplished via a rigorous curriculum and a thorough accountability system. What it means to be an educated person has been narrowed and the purpose of schools has been dumbed down. Effective teaching has been defined as teaching that raises the scores of objective tests.

Eventually machines will be much better than human teachers at raising test scores. They will utilize an in-depth record of each student’s educational background to personalize each student’s educational experience. They will create multi-media interactions perfectly suited to the student’s interests and capabilities. Machines will work tirelessly, effectively, and economically.

Hoover speaker, [Dr. Grover \(Russ\) Whitehurst](#), anticipates that soon machines will have wonderful new powers to raise test scores. He says, by 2030, **“Unobtrusive brain imaging sensors will monitor learning in real time and will determine the curriculum sequence for individual students.”**

We are on the cusp of a new generation of technology that will give a lot of new power to the managers of educational systems. How to best use this power is the question. Their use will depend on how we see the aim of schooling. If we so choose, the machines of the future can be used to impose indoctrination and “training”, but if we choose, these machines could help facilitate new dimensions of authentic education



*Part Two*

# *R*eforming *P*ublic *E*ducation



# Ohio's Director Of 21st Century Education, Explains His Vision Of The Future

*April 6th, 2011*

In a speech entitled, ["When Students Matter Most,"](#) given at the Educational Service Center for Central Ohio, Bob Sommers, newly appointed as Director of The Governors Office for 21st Century Education, gave this answer to the question: **"What is your vision of the future?"**

- Technology will be integrated in such a way to personalize education via "mass customization."
- Whole group classroom instruction — a teacher addressing an entire class — will be rare if nonexistent.
- Adult success will be judged in terms of student success.
- The use of technology and improved management will make education much more cost effective.

In the speech, Mr. Sommers indicated schools need goals "beyond math and reading." He indicated that schools must do more to develop character, cultural competence, drive, creativity, persistence.

Mr. Sommers has an impressive resume. He has worked over 30 years in every aspect of public education: teacher, board member, superintendent, charter school leader, etc. In the video he comes across as a sincere and thoughtful educator, a leader with a well developed point of view concerning how to improve public education.

Points from Mr. Sommer's presentation:

1. We are saddled with a "legacy system" — one that cannot sustain itself — and we need a new system that focuses on students rather than adults.
2. We've played games with the accountability system — "Our accountability system is basically lying to us." Regardless that Ohio shows an increase in the number of "excellent schools," an increase in state assessment scores, the fact is, any third party assessment (ACT, NAEP, etc) of Ohio's results is flat.

3. The biggest challenge is not the budget, not the stats — it is tradition. Sommers quotes Henry Ford as saying that if he asked his customers they would have said they wanted “a faster horse.” Traditions keep us from creating the new generation of education.
4. Technology must be fully integrated, we must seek “mass customization.” We must put students in charge of their own learning. Technology should not be laid over the current system, but must be an integral part of a new system.
5. Putting a great teacher in charge is more important than the number of students in a class. Great teachers should be paid extremely well. The idea is to start with a system of bonuses for teachers, and to transition to a more comprehensive system.
6. Support innovation, stop failure. Rank schools on performance (75th out of 610, etc.) Even top schools are motivated to improve their ranking. Give parents take-over rights.
7. Invest in students. Put more money in classroom, less in bureaucracy.
8. Expand choice. Increase EDChoice scholarships (vouchers); Remove the cap on charter schools; Eliminate auto transfer of collective bargaining on conversions.
9. Create a digital friendly state. Give students a choice for digital instruction. Simplify and focus state educational technology leadership. Build a platform for Digital development by Ohio’s teachers.

During the Q/A time, Mr. Sommer gave an extended response to this question: **“What will the system look like when these changes are made. Please give us your vision.”**

**“First of all,** We will not have uniformity in the educational process. Uniformity at the institutional level is fundamentally counterintuitive to meeting the needs of individual students. There is no model student. Anytime we apply a uniform application there is a problem. A lot of education today would be like the doctor who, if you had a sore would prescribe penicillin. If you had a headache — penicillin. If a broken leg — penicillin. Nobody would think that was logical. Here is the fascinating news: If we apply the right mechanisms to the right circumstances to keep them engaged, keep them excited, there is success. Children are fascinated with learning about the world. But what happens is that over

time as we apply institutional standardized instruction, we kill their interest. First thing — there would not be uniformity in the educational experience.

**Second,** All adults will judge their success by their students' success — not if they turn their paper work on time, not if they have best friends in the administration, not if they won some bureaucratic battle — they will be judged only by how well their students succeed. And if their students don't succeed, they will be energized to find a solution.

**Third,** There will not be classrooms, with teachers doing what I am doing now — giving whole group instruction — presenting information. Whenever you see a classroom, adults or children, with one person leading the group — and test this out, and visit a good classroom, watch the kids — I guarantee you are lucky to get 30% of educational productivity in that setting. Most of the students are not engaged. They are idling, waiting to hear something relevant to their learning, or they are hopelessly confused. A teacher in front of a class is fundamentally very unproductive. This design for education comes from years ago at the turn of the 20th century. At that time we didn't have the knowledge we have today about brain theory, human motivation, technology. We are clinging to a practice that was required long ago, but, that today's technology and today's understanding doesn't require us to cling to.

**Fourth,** The last thing in this new system is educators not saying, 'We have this problem and we need more money to solve it.' Money will be important at some level, but it will be a system where educators will say, 'I've got to meet this performance target at this sustainable price point. — how do I go about organizing, using technology to lower my cost for taxpayers and, at the same time, serve students better.' At Butler, we called it the Kalmus Ratio — cost per successful student."

# Pushing Kids To Early College Is The Opposite Of Advancing Authentic H.S. Reform

*February 25th, 2010*

Should academically successful adolescents go to college at the end of their tenth grade of high school? [An editorial](#) this week in the *Dayton Daily News* urges Ohio to adopt this early college idea, calling it “**a promising high school reform effort.**”

We are immersed in propaganda that education is all about competition; even the national purpose of public education is framed in terms of defeating other nations. If education is seen as a race, then winning means finishing as soon as possible — being the first to study Algebra, being the first to go to college — and doing so with the highest accolades. The big motive driving education’s incessant practice of differentiating and labeling students is to justify the ranking of students. The enormous amount of resources spent on this elaborate process of adjudication is seen as a necessary expense. Determining winners and losers is a driving purpose of public education — an essential support to the facade that we are a nation of equal opportunity.

Authentic high school reform will require in-depth thinking about purpose, about how the common good we seek in public education should best be defined and best be accomplished. Our system of public education must focus its resources on accomplishing a purpose that advances the common good — otherwise, there is not a rationale for imposing coercive taxation to fund the system. It is hard to justify spending boat-loads of money on a system that is fixated on producing relatively few winners but multitudes of losers.

The general good a community expects from spending tax money on public education is one that transcends competition and instead focuses on inspiring each child to develop his or her individual potential and on equipping each child with the capacity and desire to act as responsible citizens. Authentic high school reform is difficult. Sending kids to college early is easy. A plan to push kids out of high school early — with the excuse that they are bored or unchallenged in the present system — is not a plan for “high school reform.” It is a plan that gives up on reform.

# Motivation, Not Curriculum, Is The Key To School Reform

*March 7, 2007*

Minnesota's governor, Tim Pawlenty, says that too many Minnesota high school students are goofing off. In his ["State of the State" speech](#), Pawlenty says:

"Too many of our high school students today are engaged in academic loitering for much of their high school careers. In too many cases, our high school students are bored, checked-out, coasting, not even vaguely aware of their post-high school plans, if they have any, and they are just marking time."

Pawlenty adds, **"This is a silent crisis and has the potential to devastate our future prosperity, if we don't fix it."** His solution is to ratchet up high school math and foreign language requirements and to push more students into completing a year of college work before completing high school. Pawlenty warns that future prosperity is in jeopardy, but, the truth is, more is in jeopardy than prosperity; inadequate education of our youth not only threatens our economy, it threatens our very democracy.

Motivation, Americans believe, does not come from central planning and bureaucratic control, but from individual freedom. It would seem that this American insight about motivation should be the insight that guides the operation of American schools. Unfortunately, the guiding philosophy of school management is that quality comes via hierarchical processes and bureaucratic control — rewards and punishments. Although this approach has been shown to be a disaster, the solution to low quality that is offered, repeatedly, is more of the same.

The problem is not that schools lack adequate curriculum, technology or power over students. The central problem is that even top students are working far below their potential. Schools must find ways to inspire students to new levels of individual effort and individual maturity — levels so high that they could not possibly be mandated. Pawlenty's plan defines education as the transmission of curriculum, but education must be much more than that. Education, ultimately, is not what the system does, it is what the student does. Education, as [William Butler Yeats said](#), is not about filling a pail, it is about lighting a fire.

# Barack Obama's "Go To The Moon" Challenge Should Be: Transform Public Education

*May 9th, 2008*

Barack Obama proclaimed what could be a defining goal for public education [in his speech](#) the other day when he said that U.S. citizens should be guaranteed, **"an education for your children that will allow them to fulfill their God-given potential."** This phrase might just be rhetoric, but, if not, it indicates a truly stunning goal. A system of public education centered on understanding and fulfilling individual potential would require a revolution in our current system of public education.

Our collective imaginations have been ever dulled as to what, at best, we could hope that public education might accomplish. The issue of public education has been framed in terms of curriculum, test scores, college admissions, technical training. By common agreement, and through the efficacy of relentless propaganda, we think we know what a first class education amounts to. But, compared to education, say, in 2050, our current view of education will seem primitive and limiting. Obama's insight that education should center on understanding and developing individual human potential is an insight that anticipates the future.

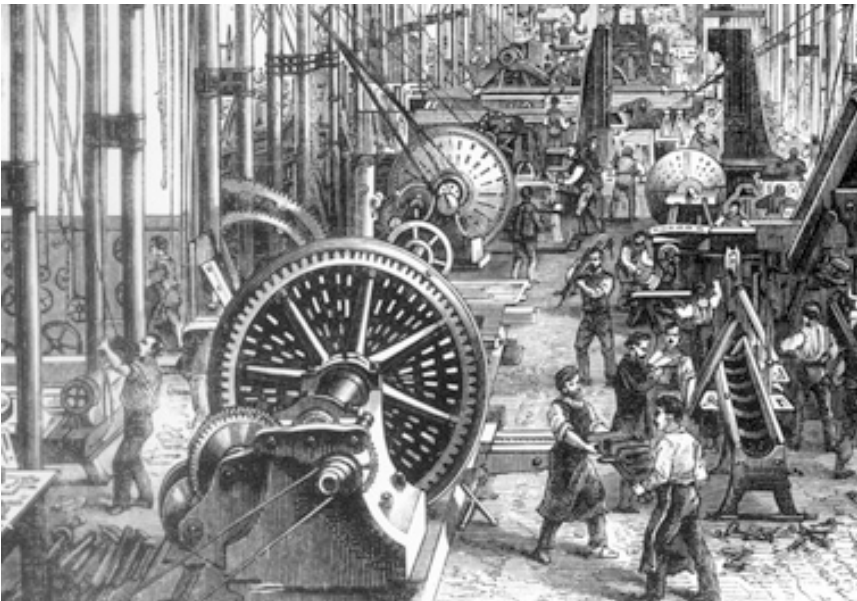
The challenge of our future is that as a nation we grow into our potential and that we fulfill our ideals. We are still the city set on a hill; we are still the best hope for much of the world. The big risk for our future is that our democracy will disintegrate, our ideals will disappear. For our nation to live up to the aspirations of our forefathers, a greater and greater number of citizens will need to develop new depths and new dimensions of their potentials. The transcendent challenge of today is all about education.

The goal of remaking public education is doable, but difficult — just as was Kennedy's "go to the moon" goal. If elected, I hope Obama will present to the nation a "go to the moon" compelling goal — one that looks to the future. What better challenge could he offer the nation than a clear vision of what a transformed system of public education would like like and a long-term plan for realizing that vision.



*Part Three*

# *B*uilding *A Better System*



# To Bring Excellence To Public Education We Must First Engineer A Better System

*August 16th, 2010*

On the cover of Frederick Hess's new book [\*Education Unbound: The Promise and Practice of Greenfield Schooling\*](#), is an open green field. Hess's theme is that we must transform the system of education and that the first step is to clear out the bramble and debris of the current system, creating green space for new development.

Over the years, there's been a lot of well-meaning initiatives to improve American education:

- The "[Nation at Risk](#)", in 1983, got the ball rolling by famously declaring, "If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war."
- "[Goals 2000](#)," in 1994, was funded with \$105 million and established benchmarks like, "By the year 2000, students will be first in the world in mathematics and science achievement," and "The high school graduation rate will increase to at least 90 percent."
- The "[No Child Left Behind](#)" Act, in 2002, a bipartisan idea, objectified goals into a plan for "standards-based education." NCLB resulted in a maze of tests and reports that have greatly impacted how teachers and schools operate.

Hess is suggesting a radical solution for American education, and I agree that radical solutions are called for. Hess says that educational reform should be guided by the philosophy of a gardener. He quotes Nobel Prize winner [Friedrich August von Hayek](#) that because our knowledge is inadequate, we should not seek to be craftsmen, but rather, we should "promote growth by providing the appropriate environment, in the manner in which the gardener does this for his plants."

Hess writes,

“We would all do well to take Friedrich von Hayek’s advice and ask leaders to think more like gardeners and less like engineers. What can they do to reduce obstacles; foster smart private and public quality control; and promote talent, capital and networks?”

Here is the puzzle: Hess wants entrepreneurs to have freedom in American education, but he shows no system design where that freedom will be meaningful or productive. He suggests no system purpose that transcends the aim of the current test driven system.

Tearing down the present structures in the hope that something better will emerge makes no sense. The results of the charter school movement have shown that removing obstacles, creating green space, is not enough. Charter school operators have enriched themselves with public money, but have created very little of lasting worth. I like the notion that successful systems promote, encourage, and empower natural growth, as if by the hand of a experienced gardener. Building such a system, one accountable to advancing the public good, however, will require thoughtful and knowledgeable engineering. Public policy must be guided by sound principles, not by wishful thinking.

# What Quality Guru W. Edward Deming Had To Say About Improving Public Education

*August 30th, 2009*

In 1991 I was a teacher member of the Quality Committee for West Carrollton Schools. Our goal was to study Total Quality Management and make recommendations of how to incorporate TQM principles into West Carrollton Schools.

Quite unexpectedly, our Quality Committee received an invitation for two of our members, at no charge, to attend a four day seminar conducted by the foremost acknowledged guru of the quality movement — [W. Edwards Deming](#). The Assistant Superintendent of West Carrollton Schools, David Weekly, and I were selected to attend and we traveled to Miami, Florida where the seminar was conducted. It was a great experience. At the seminar were mostly business leaders who had paid about \$1000 each to attend. We helped with the grunt work of setting up the seminar in exchange for free attendance. Dr. Deming was 91 years old at the time and lived but one more year — very active up to the last.

I got a chance to have a 25 minute interview with Dr. Deming, and I wrote up all the details in our teacher magazine that I edited. I recently found the copy of this magazine and scanned the articles and made a PDF – [which I am posting here](#).

Dr. Deming has been the source of profound knowledge for many organizations seeking to develop new levels of quality and efficiency. His organizational philosophy, developed from years of practical experience, is thought provoking. These are my notes from the seminar, with direct quotes from Dr. Deming:

1. Reward for good performance may be the same as reward to the weather man for a pleasant day.
2. Quality goes down when ranking people.
3. Cramming facts into students heads is not learning.
4. Information is not knowledge.
5. To learn means to learn theory, not facts and information.

6. Abolish grades in school, from toddlers on up through the university. When graded, pupils put emphasis on the grade, not on learning.
7. Schools must nurture the yearning for learning every child is born with.
8. Customers expect what producers lead them to expect. We didn't ask for the electric light bulb.
9. Be guided by theory not by figures. The most important things don't have figures to go along with them.
10. You cannot measure performance. If you thought you could, you are wrong.
11. We know the cost of training, but the benefit we will never know. Why do we do it? We are guided by theory.
12. Numerical goals are nonsense, hot air. A goal leads to distortion and faking. What is important is how to get there: **BY WHAT METHOD?** If you can accomplish a goal without a method, then why were you not doing it last year? There is only one possible answer: You were goofing off.
13. AMERICA 2000 provides a horrible example of goals, but no method. By what method? Example: "High school graduation will be at least 90%" Why not make the goal 95%? What is important is: **BY WHAT METHOD?**
14. AMERICA 2000 says, "Every school in America will ensure that students learn." Sound great, but how, by what method?
15. Deming's First Theorem: Nobody gives a hoot about profit — sustained profit — if we did we would operate as a system.
16. Deming's Second Theorem: We are ruined by people doing their best without knowledge. There is no substitute for knowledge. Without theory there are no questions, without questions, there is no learning.
17. The most important losses are unknowable. Promote joy in work by making the worker part of the system.
18. Managers talk about getting rid of deadwood, but there are only two possible explanations of why the dead wood exists: 1) You hired deadwood in the first place, or, 2) you hired live wood, and then you killed it.

19. Boiling water takes a while for you to see any change, then all of a sudden things start to happen. Have faith in the process We must know what changes to make.
20. There is in any journey an origin and a destination. The origin is the prevailing style of management. The destination is transformation.
21. Most people don't know how they are imprisoned by the current practices of management. Hard work, best efforts, and best intentions will not by themselves produce quality.
22. Transformation of management is required , learning and application of profound knowledge is required. Change is not enough. Change will not do it. It must be transformation. Transformation is like moving from ice to water. We know much about ice. We need to learn about water.
23. Management in any form is prediction. rational prediction requires theory.
24. The aim of a system must be clear to everyone in the system. Without an aim, there is no system. Think of a tiger. He has aim. He enjoys life today and assures tigers for the future.
25. Let me ask you: Is your company a system? — Sure it has people running about, telephones, budgets — But is it a system? Is your company a system or just individual profit centers?
26. A system must be managed, it will not manage itself. By focusing on a system of quality, everybody wins.

# In Education, Let's Stop Trying To Improve A Horse and Buggy System

July 25th, 2008

In many ways, we are still in the horse and buggy age when it comes to education. Some of our horse and buggy outfits are working smoothly and others are broken down. We miss the big picture when we proclaim that some schools are “excellent”, while other schools are in need of improvement. In the big picture, all schools operate using an outdated and inefficient design and at a level of quality far inferior to what is possible. We need to consign our outdated schools to the past, and we need to design a new system of public education structured to use all knowledge available to us here in the 21st century.

What hinders progress is the fact that the buggy empire sees all questions of improvement in terms of upgrading the horse and buggy system, and, funded year after year by the government, has little motivation to make transformative change.

The public never demanded the invention of the automobile, but once introduced, the public's understanding of personal transportation was transformed. Even the highest quality buggies of that time were no longer good enough to accomplish the public's new standards for judging personal transportation. The public today is not demanding the invention of a new system for schools, but once a superior system is introduced, the public's understanding of education will be transformed.

Eventually some buggy makers came to grips with the reality that their future was in the personal transportation business, not the buggy business. Similarly, school boards must begin to come to grips with the reality that the future must center on authentic *education*, not on *schooling*. There are many special interests dedicated to advancing the empire of schooling that now exists, but once the public sees a system of authentic education, the current system of schooling will become obsolete.

The task for educational leadership is to envision a quality system of education that will inspire voters to move from the horse and buggy age and invest in the system of the future.



# Public Schools Need Radical Reform, Ed Leaders Must Answer: BY WHAT METHOD?

March 7th, 2008

*The following is my response to an article written by Carl Glickman, "[Closing the Participation Gap: A Thought Piece.](#)" The article was printed in the February issue of the Forum For Education And Democracy, a publication edited by George Wood.*

Mr. Glickman's article prefaces the development of five points by saying that their purpose is to show, **"how to educate students successfully for valued and valuable citizenship."**

Mr. Glickman's points:

1. Education should build upon student interest.
2. Schools and school programming should reflect the fact that students need to examine, challenge and improve upon conventional assumptions.
3. Education should enable students the capacity and choice to work and participate in communities different from the community of one's birth.
4. Schools should be intellectually challenging places and involve students, faculty, parents and community members in significant decision making.
5. Schools need to use a pedagogy of democracy throughout classrooms.

These are all great goals, but stating goals is easy. The question is: How these goals can be accomplished? Mr. Glickman implies that schools can be transformed, if only everyone would try harder, and if teachers were more competent. But this point of view does not withstand a fair analysis.

In 1991, I had the opportunity to attend one of W. Edwards Deming's famous four-day seminars. Deming, known as a "quality guru," for his work in transforming Japan industry after WW2, said goals and quotas mean nothing unless there is a method or plan to bring those goals to reality. He ridiculed Goals 2000 by reading its goals, like, "By 2000, America will be first in the world in mathematics education," and roaring, "It's a great goal, but, BY WHAT METHOD?"

During the seminar, Deming conducted his famous “red bead experiment.” He brought out a large box of small balls — mostly white but maybe one-third red — and a special paddle that could scoop ten of these balls up at once. Deming brought corporate executives to the stage and proceeded to give each a chance to scoop up, without looking, a paddle full of balls. Red balls were considered errors or defects. The executives who produced few or no defects were highly praised, while those with a lot of defects were sternly warned. Deming had a large chalk board where he kept track. When the executives had a second chance, some who previously had been praised, now were scolded: “After that last good performance report, you must have started goofing off.” Deming had a good comedic sense.

This demonstration underlined Deming’s big point: It is the system that determines quality, not people. Deming asserted that 85% of quality issues are determined by the organizational structure of the system — and only a measly 15% of quality issues are determined by all other factors combined. Deming emphasized that if you want to accomplish a goal, you better have a system built on sound theory, you better have an effective organizational structure.

Goals must be focused on accomplishing the overall aim of the system. Deming poked fun at executives for having telephones ringing, meetings and quotas, but no unifying mission. He said, without a controlling aim, an organization is not a system and quickly can deteriorate into simply a confederation of selfish interests. He said when an organizations that become a coalition of individual profit centers find it impossible to produce the quality that the organization needs for long-term survival.

The great goals Mr. Glickman articulated in his article — such as the goal that “Education should build upon student interest” — have little chance to be accomplished outside of an effective system that focuses resources on their advancement. Stating great goals is a good first step. The big challenge is to answer the key question: “By what method?”

*Part Four*

*The Aim  
Of The System*



# John Goodlad Says We Must Agree On Mission For Schooling

May 4th, 2010

[In a new essay, John Goodlad writes,](#) “Surely the formulation of standards for schooling makes no sense until we agree on a mission for schooling.” He is 90 years old this year. The author of over 30 books, he is best known for his 1984 book, *A Place Called School*.

Goodlad, a hero to school reformers, has seen many cycles of educational reform and he writes that he agrees with the conclusions of David Tyack and Larry Cuban, writing in *Tinkering Toward Utopia* that little of substance has changed in schooling in the past 100 years.

The continuing tinkering in education, as seen in *No Child Left Behind*, leaves Goodlad, “dumbfounded.” He writes, **“How could we so ignore the lessons of 50 years of failed school reform?”** Goodlad writes:

“Is there any major field of endeavor other than schooling that has so little agency for its own mission, conduct, and well-being? Given this reality, it is not surprising that the schooling enterprise is so rife with evidence-free ideology regarding its functioning. We will never have the schools we need until local communities, educators and their organizations, and policymakers share a common mission for them.”

**“Is academic development the totality of the purpose of schooling?”**, Goodlad asks.

And he answers:

“We need to be aware that recent decades of research on cognition reveal hardly any correlation of standardized test scores with a wide range of desired behavioral characteristics such as dependability, ability to work alone and with others, and planning, or with an array of virtues such as honesty, decency, compassion, etc. Employers dissatisfied with employees who studied mathematics and the physical sciences in first-rate universities often call for higher test scores.”

# What Is The Public Education That Will Sustain An Ever More Successful America?

*December 15th, 2010*

President Obama and his Secretary of Education, Arne Duncan, define the mission of American public education almost exclusively in economic terms:

- [Obama, for example, says](#), “Our future is on the line. Giving our kids the best education is an economic imperative.”
- And [Duncan says](#), “Nothing — nothing is more important in the long-run to American prosperity than boosting the skills and attainment of the nation’s students.”

The over emphasis on the economic goals for schooling is troubling. Every totalitarian state, I’m sure, wants to produce a “competitive work force” that will secure an economic advantage over other nations. But, America has always said that it wants much more. America wants to be a country where there is “**liberty and justice for all.**” The general good we expect to advance via our tax supported system of public education is a citizenry well prepared to sustain our democracy.

More than developing technological skills, to meet the future citizens need to develop those skills needed to fully participate in a vital democracy. And the capacities of individuals needed for effective citizenship — thoughtfulness, independence, knowledge, intellectual confidence, curiosity, empathy, leadership, ability to communicate and work in groups, etc. — are the very qualities that empower individual initiative and entrepreneurship. Citizens ready to give leadership to strengthening democracy will be ready to give leadership to strengthening the economy as well.

The question I posed — **What Is The Public Education That Will Sustain An Ever More Successful America?** — is a systems’ question. Every successful system is focused on achieving an aim. I am suggesting that the aim of public education, broadly speaking, should be all about developing effective citizens.

# If The Aim Is To Provide Opportunity — How Should \$150,000 Per Student Be Spent?

*November 22nd, 2010*

Governor Ted Strickland, two years ago, in his public forums on reforming Ohio's system of public education, challenged participants to attempt to think afresh. [He said:](#)

“This is our opportunity for us to think together and to think boldly — I want to think about transforming our schools. Now, we are not an artist looking at an almost finished painting and wondering where to put that last brush stroke in order to make it a little better. What we are is an artist looking at a blank slate and asking what is the best thing we can create here.”

Wiping a slate clean and transforming a system of public education is a daunting task. When Strickland finally revealed his education plan, I was disappointed with the results. I wrote, “Strickland is basically saying that the present system is OK, but, that it needs more money, more rules, that the bureaucrats in the system need more authority, etc..”

I love the idea from W. Edwards Deming that almost every improvement we can wish for in this world depends upon our designing and implementing better systems. Every system is built around an aim or mission. What does a community seek to accomplish when it willingly taxes itself to finance a system of public education? In Kettering, the cash outlay for a K-12 education is more than \$150,000 per student. A community should ponder: What is the common good that justifies the taxes needed to fund this system?

Can we take up Governor Strickland's challenge and think boldly? If we wipe the slate of the current system clean, what do we construct in its place so that \$150,000 per child is spent more effectively? Here is a bold thought: Let's start with the premise that, in preparing for their futures, individuals, not the government, should have the opportunity for control. Suppose we imagine a system where the parents or guardians of the child are given these instructions:

**“It is in the common good that every child should grow into a realization of his or her potential. It is in the common good that every child should gain the skills and practice that will best prepare him or her to fully contribute to the success of his or her community.**

**To help fund the accomplishment of these worthwhile goals, the citizens in this community are funding a program by which the child under your care is eligible to receive \$150,000 over the next 13 years. The purpose of this money is to help provide each child with those foundations that will best help him or her become a successful, thoughtful, informed, and active citizen. Please show a plan to spend this money in the best way.”**

If given this opportunity, some parents would choose to spend their allocation within the public schools as currently structured. But many parents would welcome the chance to become full and active partners in their child’s development. It is a safe bet that a market would emerge to accommodate interested parents empowered with such funds and it would be fascinating to observe the new structures of compelling worth that the entrepreneurial imagination would soon create.

Such a system, of course, would need to include air-tight structures for accountability — structures that abundantly would satisfy taxpayers that the millions of dollars allocated to this program worked to advance the common good. It would be fun to think through what such an accountability system might look like, and fun to think through the scaffolding for such a system.

In thinking about school reform, a good place to start is with the question: If the aim of public education is to provide every child with opportunity, and to equip each child with the skills, character and outlook needed for him or her to become an active and productive citizen — how should the system be structured to most effectively spend \$150,000 per child?



# Expensive Education Fails To Increase Economic Opportunities For Many Citizens

*September 12th, 2008*

Our future as a democracy depends on whether we can answer this question: **How can our democracy provide increasing economic opportunities for all of our citizens?**

Education, education, education is usually the answer. But this answer deserves a closer look. As it is, we already spend tons of tax money on schools, yet many people who have gone through our educational system are still far from enjoying significant opportunity. [Charles Murray](#), makes this observation: “Half of all children are below average, and teachers can do only so much for them. It’s a simple truth: Half of all children are below average in intelligence. We do not live in Lake Wobegon.” Murray is notorious for disputed ideas in his [Bell Curve](#), but his points need to be answered. He writes,

“Our ability to improve the academic accomplishment of students in the lower half of the distribution of intelligence is severely limited. It is a matter of ceilings. Suppose a girl in the 99th percentile of intelligence, corresponding to an IQ of 135, is getting a C in English. She is underachieving, and someone who sets out to raise her performance might be able to get a spectacular result.

“Now suppose the boy sitting behind her is getting a D, but his IQ is a bit below 100, at the 49th percentile. We can hope to raise his grade. But teaching him more vocabulary words or drilling him on the parts of speech will not open up new vistas for him. It is not within his power to learn to follow an exposition written beyond a limited level of complexity, any more than it is within my power to follow a proof in the American Journal of Mathematics. In both cases, the problem is not that we have not been taught enough, but that we are not smart enough.”

Murray speaks too much in absolutes. My experience as a teacher showed me over and over again how effort and attitude were more powerful than IQ, but what he writes sounds reasonable:

“There is no magic point at which a genuine college-level education becomes an option, but anything below an IQ of 110 is prob-

lematic. If you want to do well, you should have an IQ of 115 or higher. Put another way, it makes sense for only about 15% of the population, 25% if one stretches it, to get a college education. And yet more than 45% of recent high school graduates enroll in four-year colleges. Adjust that percentage to account for high-school dropouts, and more than 40% of all persons in their late teens are trying to go to a four-year college—enough people to absorb everyone down through an IQ of 104.”

One big unspoken purpose of our educational system, that the system accomplishes brilliantly, is to provide a validation for our overall structure of economic injustice. Our educational system delivers the message: If you did crummy in school, you “deserve” a crummy life. If you failed algebra, you “deserve” to live in poverty. It is interesting to consider what it is that one deserves.

I was disappointed in Barack Obama’s recent speech about education, because, in that speech, he seemed to find only one purpose for education: economic opportunity. Obama made clear that he believes education is the surest way to economic success. Yes, it is — but for many individuals it doesn’t work. Education is not a strategy that can work to give economic success to everyone. And, more importantly, education doesn’t realistically give even the **opportunity** for economic success to many people. For many people, the idea that education is the way to personal prosperity simply is not true.

The world-class education, from birth through college (or advanced technical training) that Obama’s plan calls for could easily have a price tag of \$250,000 per person. Obama is recommending a big investment, and I support the notion that our democracy should make a big investment in every citizen. The question, however, that needs to be debated is: **How should this \$250,000 per person best be spent to give each person authentic opportunity?**

As it is, expensive education fails to increase economic opportunities for many citizens. Charles Murray has a pretty compelling, if disturbing, explanation why this is so. The question is: In a democracy, what should an educational system look like that would most effectively empower all of its citizens with economic opportunity?

# The “Achievement Gap” Debate Must Include All Schools And All Students

*June 4th, 2008*

The way the National Issues Forum (NIF) frames the question of public education in its forum booklet — [\*Too Many Children Left Behind: How Can We Close the Achievement Gap?\*](#) — actually may deter and discourage the meaningful discussion about public schools that is most needed. The NIF materials stimulate discussion about the difference of achievement scores between suburban schools and inner city schools, between rich schools and poor school. But there is a more important gap that needs to be discussed.

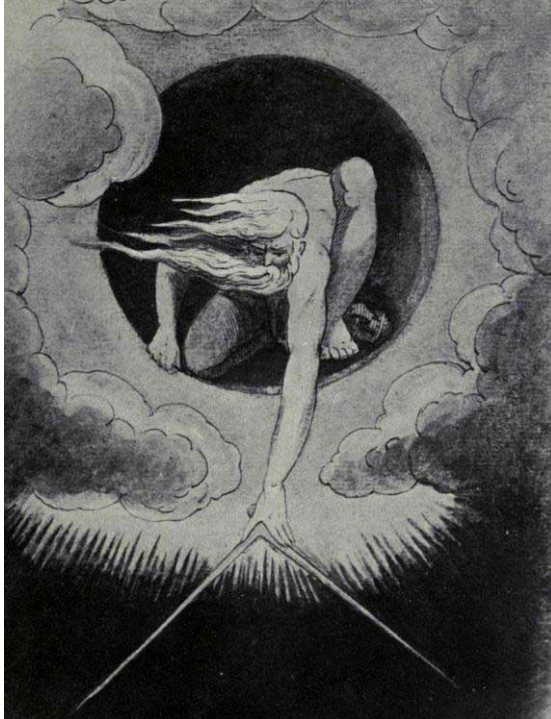
Most attendees at an NIF education forum would likely start with an underlying assumption that the schools in their own community are fine and that what needs to be discussed is the education of other people’s children, the education offered in other people’s schools. Yes, those inner city schools are a mess; yes, principals and teachers in those failing schools should be held accountable, etc. Let’s discuss these failing schools; our own schools are doing just fine.

The issue of improving public education should be framed in such a way that it speaks to every parent, particularly those parents whose children or grandchildren are already high achievers according to school standards. The “gap” that really interests parents is the gap between the actual education that their child is receiving and the optimal education that would most help their child.

One purpose of an educational forum should be to arouse parents of successful schools and successful students from their complacency. There is a huge gap in our educational system between what the system is, even at its best, and what it should be. This is the gap that should frame and should drive discussions about how to improve public education.

*Part Five*

# *Great Teachers And The Profession Of Teaching*



# Great Teachers Through Their Behaviors And Attitudes Serve As Good Role Models

*January 6th, 2011*

A great teacher is one who has a message of truth, one who makes disciples of that truth. A teacher is great because the truth that he or she teaches is great, and because the teacher makes that truth accessible to those willing to be disciplined. Einstein was a great teacher. He became a disciple to truth and brought enlightenment to himself and to humanity. He modeled enlightened thinking.

The teacher/student relationship is one settled deep in our psyche. When we say that every child deserves a great teacher, we should mean that every child deserves the opportunity to apprentice himself or herself to a worthy role model — someone worthy of respect, someone whose behaviors and attitudes serve as a good example of a person developing into maturity. Few of us grow into our maturity. A great teacher is one who can show the way, because he or she is a practitioner of the way. A great teacher is one who teaches by example, who demonstrates growth toward human maturity and who empowers his or her apprentices to do the same. Many parents are poor role models for their own children. For many children, their only chance to learn about adult maturity is through public education.

I agree with Davis Guggenheim, “Waiting for Superman” director, when [he says](#), **“We can’t have great schools without great teachers.”** But the problem is, the present system defines a “great teacher” as one whose students produce great test scores. In the big picture, this is a trivial definition.

Teachers are haughty in their conviction that they never will be replaced by machines. But, if teaching is simply defined as transmitting curriculum and if “great teaching” is defined as producing great student test scores, then eventually machines will do these routinized, objectified tasks much better than humans, and at much less cost. Teachers, for the sake of the future of their profession, need to describe what it means to be a “great teacher” in a way that elevates the teaching profession.

# Watson's "Jeopardy" Win Forces Us To Rethink The Profession Of Teaching

*February 18th, 2011*

Wow. "Watson", the IBM supercomputer, in an impressive display of simulated intelligence this week, won the TV quiz program, "Jeopardy" — thoroughly defeating the reigning human champions.

IBM believes Watson will result in big profits. By next year, IBM plans to offer a commercial version of Watson for sale — a whole trailer full of equipment and software that will cost several million dollars. IBM believes decision-makers will be willing to pay a lot of money to acquire the power to sift through enormous piles of written material in seconds. Imagine a program with Watson's capacity loaded with every successful teaching strategy. Imagine the big profits possible if professionally paid teachers could be replaced with "intelligent" machines.

In education, the battle of **teacher v machine** begins at the point where the very purpose and meaning of education is defined. Increasingly, education is being dumbed down to mean the transmission of a curriculum as measured by objective tests. If some terminator type intelligent machine was working from the future — implementing a long term plan to commandeer public education — a good place to start would be the trivializing and "dumbing down" of the whole concept of education and the complete discrediting of the teaching profession.

We've been brainwashed to think a school is "excellent" if a sufficient number of its students show minimum competence on objective tests. It's obvious we don't need highly paid professionals to accomplish excellence so defined. It's a small step from a teacher conducting a lesson by literally reading from a script provided by a textbook publisher, to a machine reading from the same script and through a multi-media and personalized approach, doing a better job.

The computer is a tool growing rapidly in power, and at an increasing rate. The question is — in education, how will we choose to use this power? Watson's "Jeopardy" win should force us to give some careful thought about the future of the teaching profession.

# Education For The Future Demands Authentic Teaching

*April 1, 2007*

I grew up in an old farm house in the country. We had no TV until I was nine. I was constantly outdoors. I remember seeing a huge snake shed its skin; I remember seeing a momma skunk with five baby skunks following in a line after her; I remember playing endlessly outdoors — the clucking chickens, crowing roosters, my Dad's garden and my Mom's flowers. All of this, and much more, was part of my education and, like a little sponge, I took it all in.

I like Maria Montessori's concept of [the absorbent mind](#). Nature has empowered us with a great capacity for individual development, and much of this capacity is unconscious to us. Certainly we are always learning more than what we know that we are learning. And my outdoor education provided me with a wealth of input and impressions.

My first teachers were my parents. I was blessed that, throughout their lives, they grew into ever more loving and wise individuals. What I've come to understand is that from those who are truly our teachers, we learn ways of seeing, ways of hearing, ways of feeling, valuing, and expressing ourselves as well — and that such learning happens naturally, unconsciously.

The whole march of the No Child Left Behind Law and the Back to Basics movement downplays and diminishes the role of teacher and increasingly takes away a human quality in teaching. Advances in computer instruction and the continuing revolution in computer technology raises the possibility that, in the future, teachers literally will be robots. But I think not. I think that, eventually, education will become based on a more valid view of human nature, and this view will cause education to define itself in human terms.

We have failed, so far, to advance a scientific understanding of education. Our current prescriptive schools tend to define teachers as bureaucrats whose job is to oversee and dispense a government program. But the role of a teacher, one established through the millennia, is to act as a mentor. A teacher is someone who inspires and encourages emulation, and who through

his or her very life instructs others in ways of seeing, doing, and being.

Today, when I see a well kept garden, particularly if it has vigorous muskmelon plants, I realize that I see it with the appreciation of my Dad's perspective. When I see a beautiful bloom, I realize that I experience it with a sense of love and gratitude given to me by my Mom. At one time, I suppose, I would have imagined that such ways of seeing were just part of my makeup, but I've come to better understand the impact of these influential teachers, and how my own perspectives and thoughts to this day are influenced by them.

The education of the future, when it shuffles off its unscientific core, I believe, will begin to anchor the teacher role and the teacher/student dynamic within an understanding of education that is based on a deep appreciation of human nature. Education in a more enlightened future will have as its goal the development of human potential and will understand and promote authentic teaching as a key aspect of that development.



# How A Lazy Disinterested Prince Came To Relish Learning And Treasure Understanding,

*March 23rd, 2009*

I've been mulling over a thought experiment I proposed some time ago:

Suppose you live in a time of kings. Suppose your king has a thirteen year old child and suppose the king assigns you the responsibility for the thirteen year old's total education.

The blurb on the dust cover for this potential book might be something like: **"How it was that a lazy and disinterested prince came to relish learning, to treasure understanding, and to delight in gaining insight."** The point is, if a lazy prince could make such a turnaround, maybe your disinterested thirteen year old, under the right conditions, might do the same.

Intrinsic motivation is what drives accomplishment. My story would attempt to explain the principles of how intrinsic motivation can be inspired and nourished. Of key importance in the story would be an unfolding of what the purpose of education should be. A prince does not become ready to become king by knowing a lot of academic stuff. To become ready for responsibility a person must grow into who he or she is. To become worthy of leading a nation, a prince must develop excellent character, must relish wisdom, justice, and must delight in understanding and learning.

The education appropriate for a prince, in a democracy, is the education that is appropriate for every child. I remembered my old thought experiment when I read that Richard Dreyfuss, the actor who played Dick Cheney in Oliver Stone's "W," is becoming an outspoken [advocate for improving civic education in America](#). Dreyfuss points out that in a democracy, the people are sovereign. "If the people are sovereign," he says, "they are the monarch. And who tutors the monarch? Who trains and teaches the people to be sovereign?"

The idea of my fictional story is to boil down education into its simplest configuration — one teacher, one student, one parent — and show in this limited setting what authentic education looks like. All education, ultimately, is self-education. If we applied Dr. Deming's advice that education should center on "re-

storing and nourishing the ‘yearning for learning’ every person is born with,” what would our educational program look like?

John Dewey famously said that the education that the wisest parents want for their child should be the education provided to every child. There is a big difference between education and schooling. We tend to equate the two, but a wise king knows better. A wise parent wants his or her child to be educated — not simply schooled.

Seeing a school child, regardless of their social standing, as a future monarch in need of an enriched education that is self motivating — one that he or she will relish — seems a valuable way to frame a discussion about school reform, a valuable way to frame a discussion of what it means to be a great teacher.

*Part Six*

# *Good Character, The Key To Success*



# The Destiny Of Character Gives Hope That In Humanity's Dark Streets Can Shine An Everlasting Light

*December 24th, 2011*

In 1865, [Phillips Brooks](#) delivered his famous sermon ([See Sermon VI here](#)) on the death of Abraham Lincoln saying, **“The more we see of events, the less we come to believe in any fate or destiny except the destiny of character. ...”** Brooks went on to an illustrious career in the Episcopal church and is remembered in this Christmas season for writing the words of a famous meditation, the words of the hymn, “Oh Little Town Of Bethlehem”:

*“Yet in thy dark streets shineth  
The Everlasting Light  
The hopes and fears of all the years  
Are met in thee tonight.”*

According to his biographer, Brooks, in his writing and sermons, frequently quoted these words of Jesus: **“If ye continue in My word, then are ye My disciples indeed; and ye shall know the truth, and the truth shall make you free.”** The theme of bringing truth and freedom to those in darkness was a central part of Jesus’ teaching.

Pilate famously asked, “What is truth?”

Humanity now knows more — scientific truth, rational truth — than what in the first century was possible to know. Much of what passed for “truth” in the first century, we now know was absolutely wrong. But Jesus said he, himself, was truth and showed a reality that transcended the limitations of his age. Love, loyalty, personal integrity shine out today as brightly as 2000 years ago. The challenge is to grasp the truth that brings freedom, the eternal truth revealed in Jesus’ character.

The book I read this year that most intrigued me was Ray Kurzweil’s [The Singularity Is Near](#). Kurzweil predicts that, by the year 2045, powerful machines will emulate the human brain. They will repeatedly reprogram themselves and eventually will exhibit an intelligence “billions of times” greater than the intelligence of

humans. Kurzweil calls this development of super intelligence the Singularity — comparing this coming point in history to the singularity, the black hole, of cosmology — an astonishing phenomenon of such power it absorbs all light, making it impossible to see beyond its emergence.

The fascinating question is: Will these future machines not only exhibit enormous intelligence, but will they also exhibit what we call “character”?

Throughout history, it has been character that has distinguished the most outstanding individuals. The personal power of Lincoln and Jesus did not come from their high IQs or academic mastery. It was their character that was the foundation of their gift to humanity. It was the expression of truth in their character that made them exceptional. Character and intelligence seem to go hand in hand, but, it seems, in the highest functioning humans, it is character that forms intelligence, not vice versa. An interesting essay on Einstein makes the point that it was Einstein’s character, his uncompromising integrity, that was the secret of his genius, not his mathematical prowess. It is commitment to truth and integrity that reveals the “Everlasting Light.”

Character is destiny. Our big challenge as a world and society is to develop enlightened citizens of good character, because, meeting the challenges of the future will require the best that humanity has to offer. Christmas gives hope that in the canyons, the dark streets of humanity, there will shine the “Everlasting Light,” a light revealed in the highest expression of human character, a light that inspires the resolve and outlook expressed by Robert Kennedy:

*“There are those who look at things the way they are, and ask why... I dream of things that never were, and ask why not?”*

# Humanity Is On A Wire — The Future Demands Individuals Of Strong Character

*May 9th, 2011*

The documentary film, ["Man on Wire,"](#) tells about Philippe Petit's 1974 stunning high wire walk between New York's Twin Trade Towers. Petit, and his accomplices, without the approval or knowledge of the authorities, managed to secure a wire between the two Trade Towers, and then early on the morning of August 7, 1974, Petit created a 45-minute performance at 110 stories above the ground. The film won the Grand Jury Prize at the 2008 Sundance Film Festival, and it is now on Netflix.

It's mind boggling to imagine what Petit felt and saw as he took that first step from the building to the wire. Why was Petit so motivated? What accounts for his lifetime of disciplined practice, his absolute confidence, his character, his courage? What is it that drives any human toward excellence? How is it that some humans are strong willed and inspired to do the extraordinary? We need an educational system that will encourage a blooming of individuals like Philippe Petit. As it is, in America we talk the talk of individualism. We like to think that as a society we encourage individuals to develop strong character, to be independent thinkers, entrepreneurs. But, our educational system, as it is practiced, is all about imposing conformity.

In the future, the upper level of human accomplishment will be defined by those qualities that are most uniquely human, those most un-machine like. The mastery of academic knowledge someday will fade in importance. The goal of education will be the attainment of the foundation for a thoughtful, harmonious, happy, and useful life. Education will center on the ancient admonition to "Know thyself," and the point of education will be to acquire an holistic wisdom that empowers one to understand, to happily live in, and to positively contribute to the uplifting of the real world.

Humanity is on a wire and unless we gain sure footing, we are headed for an abyss of absolute destruction. The contemplation of the character and virtue that empowered Philippe Petit's success — 110 stories up in the air — is a contemplation of how and why the human race yet may save itself. It seems to me, in the future, the aim of education will be centered on developing character.

# The Education Of John Adams

*March 22, 2006*

David McCullough's book, [\*John Adams\*](#), tells about the education of John Adams.

John Adams graduated from Harvard, received a law degree, acquired academic recognition, read Cicero and the classics, was immersed in life-long learning. What distinguished John Adams most, however, was not his learning accomplishments; what distinguished John Adams was his overall character, his integrity, commitment to truth and justice, dedication to service, commitment to personal excellence, inner self-reflection, personal courage, etc. The education of John Adams involved the mastery of academics, but the more important part of his education was the development and strengthening of his character.

Character development is an important part of an effective education. But since character development is not something that evaluators of a school measure, it is now effectively ignored by schools. Academic growth is what is emphasized.

The importance of character development may be mentioned in school publications as a vague goal, but, practically, because character development is not part of school evaluations, schools ignore character development. If a real goal of schools was to promote character growth in children, then schools would be evaluated not just on their students' academic growth, but on their character growth as well. Evaluators periodically would want to know the answers to such questions as: Has there been any positive growth in the children's integrity, commitment to truth? Any growth in the children's inclination to question authority, to think independently? Any growth in the children's commitment to personal excellence or inner self-reflection? And schools would be evaluated and ranked according to the evaluators' findings of such questions.

Public schools should provide an education to their citizens that will empower and encourage them to participate effectively in their democracy. The public good in public education of most importance, it seems to me, is the development of a citizenry with the personal qualities — with the character — needed to

assure the preservation and growth of our democracy, the preservation of a government "for the people, by the people."

Schools, generally, do not model for students what democracy should be, but rather, immerse students into a benign or petty dictatorship – an overall organizational structure that is the hallmark of most schools. Schools convince students, by much reinforcement over the years, that when one obeys and fawns over authority, one receives rewards; and when one defies authority, one receives punishment. Structures of control that may seem appropriate to guide the behavior of 6 or 7 year olds, continue to be used by schools to control 16 or 17 year olds. Schools, through their practices, engage in enforcing immaturity within their students. Students are not encouraged to develop the character of John Adams, but in fact are often punished for displaying independent thinking. The idea that schools should prepare students for effective citizenry has become a forgotten idea.

Most of John Adams' early character development occurred outside of his formal schooling. His parents' character proved to be an inspiration and model for Adams throughout his entire life. One central quality of Adams' personality was his personal integrity and Adams continually credited the example given by his father for his high standard for honesty. The other huge early educational influence on John Adams was simply his overall environment. By his report, he lived a wonderful childhood, surrounded by a supportive, vital community. Not only his immediate family, but his whole community contributed to his happy development. "It takes a village" is a powerful concept, the application of which can positively be seen in Adams' early life.

If a childhood such as Adams enjoyed, with the influence of such positive parents and community, could be every child's birth-right, then the matter of schools providing the education needed for effective citizenry would not be a concern. Students would acquire the tools for effective citizenry, like Adams, outside of their formal schooling. But few children are so privileged. And the issue is not only money. Children today often lack the attention and care of wise, grounded parents; they lack the interactions of a vital community. Children, instead, are immersed in a media culture and in media values; the TV often serves both as parents and community.



The deprivation of children that schools most note is the deprivation that will get the schools in most trouble in state evaluations. But the most important deprivation of students is not their lack of a foundation in math or writing skills. The deprivation of children that is most telling is their lack of good role models, their lack of the support of a vital community, their lack of practical and real experiences. It is these deprivations that most hinder the development of character in children. How schools can effectively compensate for these deprivations is a key question.

Character development goes hand in hand with academic development. We cannot, try as we may, divide humans into compartments. The early education of John Adams resulted in his becoming a man of great learning and a man of great character. Learning helped improve and strengthen John Adams' character, and a strengthened character helped Adams to be a better learner. This relation between learning and character seems a great principle that could be applied to much advantage in schools.

And so, how can character be developed in schools? Certainly not through dictatorial efforts nor through workbooks or classes. It seems to me that the question of how student character can be developed and strengthened in schools requires an answer, in fact, that goes beyond what is imaginable for schools as they are currently structured. But whatever the answer is, the first step is to acknowledge the importance of character development and to make a commitment to finding ways to make character development a central concern of schools.

John Adams' biography reveals principles of character development. Principles endure. The challenge is to use principles to guide the design of new educational structures, new schools – but that is a challenge for another day. Here is the question: What would educational structures/schools look like that would implement and use the principles that were the basis for the education of John Adams?

*Part Seven*

# *The Importance Of Civic Education*



## For Our Success As A Nation, We Need More Than STEM, We Need CITIZEN Education

*November 30th, 2011*

Dayton PBS stations repeatedly show 60 second ads praising local efforts in STEM education. I get a kick out of the fervency projected by the teachers on these videos talking about “Science, Technology, Engineering and Math.” In one video a teacher breathlessly exclaims: “Our challenge is to create a vast body of talent so that the Dayton region can become an economic power.” In another video, an earnest sounding teacher says: **“Employers in our region need a knowledgeable and high tech work force and that’s what we plan to deliver.”**

Teachers in these ads seem like wonderful people with good motives. But they are championing a purpose for public education that seems one-sided. I could imagine the Education Minister of North Korea making the same sort of declarations as these teachers make.

We need an in-depth discussion about how to define the aim of public education in a representative democracy. Alfie Kohn, in an essay entitled, [“When 21st-Century Schooling Just Isn’t Good Enough: A Modest Proposal”](#), notes, “School reform is almost always put in the context of, ‘the need to compete in a global economy.’ The goal isn’t excellence, in other words; it’s victory. Education is first and foremost about being first and foremost.”

The notion that the aim of American public education is “economic power” seems never challenged, regardless that such an aim is more appropriate to guide the educational system of a totalitarian state than to guide education in a democracy. Our national goal is not to dominate other nations. Our national goal is “liberty and justice for all.”

As it is, the amount of liberty and justice an individual enjoys in our society is directly related to the amount of money he or she has. Many Americans simply don’t have enough money. And, a big influx of new wealth may not help. Our society is not wisely using the wealth it already has.

To build a more fair and vibrant society, our only hope is to vitalize our democracy, and such a vitalization will require an educated and engaged citizenry.

I like the goals for STEM education outlined by Janice Morrison, author of [\*Attributes of the STEM-Educated Student\*](#). Morrison says that STEM education seeks to develop students who are:

- **Problem-solvers** — able to frame problems as puzzles and then able to apply understanding and learning to these novel situations.
- **Innovators** — have the power to pursue independent and original investigation.
- **Inventors** — recognize the needs of the world and creatively design and implement solutions.
- **Self-reliant** — able to set own agendas, develop and gain self-confidence and work within time specified time frames.
- **Logical thinkers** — able to make the kinds of connections to affect an understanding of natural phenomena.
- **Technologically literate** — understand the nature of technology, master the skills needed and apply it appropriately.

STEM education, according to this list, seeks to develop those very skills needed for exemplary citizenship. But developing effective and prepared citizens should be the first emphasis of public education, not a second thought. For our success as a nation we need a public system that will develop good citizens. We need more discussion about CITIZEN education.

# Report Warns Neglecting Civic Education Harms Our Democracy: “All Of Us Must Learn To Become Americans”

*October 5th, 2011*

A 56 page report published in September, [“Guardian Of Democracy,”](#) decries the deplorable state of civic education in America and gives recommendations as to what schools should be doing to better prepare and empower students to be effective citizens.

The report published in partnership with the Leonore Annenberg Institute, is an expansion of a 2003 study on the [“Civic Mission of Schools”](#) published by the Carnegie Corporation of New York. The report shows that two-thirds of high school graduates are sorely lacking in their knowledge of civics. It says that most American schools, “either neglect civic learning or teach it in a minimal or superficial way.”

The report urges that schools implement six “proven practices” :

1. **Classroom Instruction:** Effective civic learning begins with classroom instruction in civics, government, history, law, economics, and geography....
2. **Discussion of Current Events and Controversial Issues:** Political controversy is ever-present in democratic nations, and that is as it should be, since controversy is an intrinsic part of the political process and is necessary for the very survival of democracy. ... To ensure that school-based civic learning is authentic, we need to dramatically increase the attention given to discussing controversial political issues—meaningful and timely questions about how to address public problems...
3. **Service-Learning:** Service-learning is an instructional methodology that makes intentional links between the academic curriculum and student work that benefits the community by providing meaningful opportunities for students to apply what they learn to issues that matter to them. Service-learning is far more than community service alone; high-quality service-learning experiences incorporate intentional opportunities for students to analyze and solve community problems through the application of knowledge and skills.
4. **Extracurricular Activities:** According to some studies, school-group membership is an even better predictor of

adult engagement than more commonly recognized factors such as education and income. A wide range of extracurricular activities have civic benefits. Not surprisingly, explicitly civic activities such as mock trial, model congress, speech and debate, and model U.N. all have positive impacts on students' civic knowledge and engagement.

5. **Student Participation in School Governance:** One of the ways in which schools can prepare students for a lifetime of democratic participation is to train them in self-government within the school context. Students often have good ideas about how to improve their schools and communities as places for civic life and learning, and formal structures for considering students' views are a valuable way of modeling democratic practices and teaching students civic skills.
6. **Simulations of Democratic Processes:** In addition to the obvious benefit of increased civic knowledge, students learn skills with clear applicability to both civic and non-civic contexts, such as public speaking, teamwork, close reading, analytical thinking, and the ability to argue both sides of a topic. All of these are skills that prepare students both for active citizenship and for future academic and career success.

# Schools Create “Dunderheads” — A Generation Of Students Ignorant Of U.S. History — Says Fordham

September 7th, 2011

The Fordham Foundation in a recent report — [The State of State U.S. History Standards 2011](#) — says,

*“We have mounting evidence that American education is creating a generation of students who don’t understand or value our own nation’s history. Dunderheads ... one might well conclude, at least in this domain.”*

Of all subjects, American students score lowest in American History, with only 20% of students showing proficiency on the National Assessment of Education Progress (NAEP). The Foundation states: “Historical comprehension is vital if students are to understand their nation and world, and function as responsible, informed citizens,” and deplorably low history scores, “remind us of the serious shortcomings in how we approach history education in this land. In the vast majority of states, history standards are pitiable and incentives to take this subject seriously are nonexistent.”

Schools are evaluated according to their math and reading scores, but scores in history have no impact on schools’ evaluation.

Fordham published a comprehensive analysis of American History education standards in 2003 and then, just this past February, in 2011. It rated Ohio’s American History curriculum standards a D in 2003, and, again, a D in 2011. It rated the history standards of only one state, South Carolina, an A. The average score for all fifty states was a D. Concerning Ohio, the report states, “There is little American history content or educational rigor in Ohio’s standards. Before eighth grade, there is effectively none. The eighth-grade course offers a bit, attempting to cover the entire period in a handful of broad content statements. The high school course, while marginally more sophisticated, is still exceedingly brief and general; at best, it offers a very basic outline.”

The report quotes noted historian David McCullough: “I don’t think there’s any question whatsoever that the students in our institutions of higher education have less grasp, less understanding, less knowledge of American history than ever before. I think we are raising a generation of young Americans who are, to a very large degree, historically illiterate.”

From the report:

“What causes this alarming vacuum of basic historical knowledge? There are multiple explanations, of course, but the most significant is that few states and school systems take U.S. history seriously. So why should students?

“Yes, every state requires students to study American history in some form — often in the traditional junior-year U.S. history course — and every state except Rhode Island has mandated at least rudimentary standards for this subject. Yet few hold their schools accountable for teaching the standards or their students accountable for learning the content. In fact, it appears that only thirteen states include any history or social studies as part of a high school exit exam and just eight assess (or will soon assess) social studies or history at both the elementary and high school levels.

“This under-emphasis on history in K-12 is compounded by the fact that universities seldom require prowess in history as a condition of entrance and almost never make it a graduation requirement of their own.

“Since learning history doesn’t really count, schools devote less and less instructional time to it. One analysis, based on federal data, suggests that elementary schools spend a paltry 7.6 percent of their total instructional time on social studies, of which history is only one part — and often a distressingly small part.”



## Conclusion and Invitation

The introduction to this book informs the reader that its essays point to three conclusions:

1. The aim of our system of public education must be to advance the common good — a goal that transcends what can be measured in objective tests.
2. Public education must be structured so that all of its resources are focused on accomplishing its aim.
3. Creating the best educational system requires that citizens become active in their local democracy.

This book has pointed out that it is in the common good for each child to develop strong character. It has taken the position that the big challenges of tomorrow will require a citizenry well grounded in civic education. It has warned that eventually machines will be more effective than humans at transmitting curriculum and that machines will replace teachers — unless what it means to be a great teacher is re-defined. It says a great teacher must model what it means to be an educated adult and must act as a skilled mentor helping each child to understand and to develop his or her potential.

There is much hand wringing over city schools that are failing. But this book points out that it's wrong to conclude that city and suburban *systems* are much different — regardless of the big gap between their test scores. Both city and suburb systems are structured according to an industrial model of mass production — hierarchical, bureaucratic, top-down. Both have similar contractual and organizational arrangements. The difference in city and suburban test scores is explained by influences from *outside of the system* — community stability, family strength, educational history, and economic resources — not by variations in the systems.

A school that is effective is one that provides a transformative educational experience to its students. City schools are easily criticized for their well publicized failures, but citizens in suburban schools should have a thoughtful discussion about their own schools. Just because a child is getting good grades does not mean that the child is getting a good education. Just because a

child is accepted into a good college doesn't mean he or she is prepared with the habits, character and outlook that will most help him or her to be successful. What frustrates many parents — in both city and suburban schools — is the fact that their child is disinterested in learning and is working at a level far below his or her potential, even if he or she is getting good test scores.

It is ironic that citizens who are suspicious of all forms of propaganda seem to not question the proclamations that their schools are “excellent”. The problem is, schools may be excellent at *schooling* — focusing a lot of resources on transmitting curriculum, grading, ranking, and preparing for tests — but fall far short at *educating*. Schools have wonderful sounding goals posted on their websites that talk about developing a child's potential and creating solid citizens, but communities need take a close look at how the resources of the system are actually expended.

Public education is waiting for the development of a superior system — one that will inspire, motivate and empower students and teachers in suburban schools as well as in city schools. But this superior system will not pop up by itself. The key point to be underlined is that the way forward to improve public education is via an engaged and thoughtful citizenry. David Matthews, President of the Kettering Foundation makes a strong point in his book [\*Reclaiming Public Education By Reclaiming Our Democracy\*](#) that in order to improve our system of public education, we first must improve our democracy.

I am hoping the ideas in this book will help bring people together for thoughtful discussions and that such discussion will contribute to the creation of a longterm plan for system restructuring — one that my own community may endorse and one other communities may endorse as well. Here is my invitation. I am posting the electronic version of this book online at a new web-site I am starting — [OhioTownHall.com](http://OhioTownHall.com) — and I am welcoming discussion. You are invited to join me there.

Sincerely, Mike Bock

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# Public Education 2030

## *The Singularity Approaches*

*These essays on public education  
originally were written as web-logs  
and posted on DaytonOS.com*

### *Some excerpts:*

*Raising test scores has become the controlling mission of public schools and, to accomplish this mission, school time is precisely controlled, curriculum carefully aligned, and the definition of "good teaching" narrowly defined .*

*We have dumbed down the work of teachers to the point that, with the rise of powerful and inexpensive technology, unless teachers can re-define their profession, it seems inevitable that machines will replace many teachers.*

*Our industrial structured schools are evaluated according to how well students score on objective tests. To meet the challenges of the future, public education must be transformed so that schools and teachers are evaluated according to how well each child understands and develops his or her potential, and, on how well each child is prepared to participate in active citizenship.*

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