

# The World Needs a New Curriculum

It's time to lose the “proxies,” and go beyond “21<sup>st</sup> century skills”  
— and get all students in the world to the real core of education

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*“We cannot always build the future for our youth.  
But we can build our youth for the future.”*

– Franklin Delano Roosevelt

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## ABSTRACT

The author proposes that today's existing, world-wide curriculum — based on offering roughly the same math, language arts, science and social studies to all — is not what is required for the future, and is hurting rather than helping the world's students. Math, language arts, science and social studies, he argues, are really “proxies” for a small number of identifiable underlying skills which can be taught in other, more useful ways, and furthermore, he says, there are many other skills students need that we do not offer at all — particularly in the areas of action, relationships and accomplishment.

Prensky proposes a very different curricular organization, based at the top level, around the four key areas of Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment. He suggests that the amount of math, language arts, science and social studies we still offer, beyond a very small core, be different for each student depending on interest and need, but that the underlying skills be the same for all. Prensky's organization goes beyond what is currently offered by the proponents of so-called “21<sup>st</sup> century skills.” Further, Prensky proposes that all education not be based on made-up examples designed to be “relevant” to all students (or on problems designed to “cover standards”) but on actual accomplishments of students in the real world.

**If** we really mean to educate all the kids in the world— and I certainly hope we do — we have a big job ahead: there are now billions of kids to educate. But just reaching all those kids with what we now call “education” is only half our current problem.

This is because almost all of today’s efforts to extend education’s reach and “improve” it focus on delivering the same education *we* all received: i.e. some version of math, language arts, science and social studies. The only questions ever asked are “How can the teaching of our current curriculum be improved?” and “Are there better ways — such as with technology — to teach what we currently do?”

Certainly “better teaching” is something we all want. But better teaching of our current curriculum is not what our kids really need.

**The far more fundamental reform needed to make education effective for the kids of tomorrow is not to HOW we teach what we currently do, but, rather, to changing WHAT we teach — to reforming the world’s “core” curriculum.** Because the world’s context has changed, for our kids to thrive in the future our goals for education must change with it. We can neither adapt to the new context, nor reach our goals, with the curriculum we now have. The entire world today is in need — desperate need — of a wholly new education “core” and set of “basics.”

### The “Proxies”

The strangest thing about the world’s current curriculum is that it is not based on people’s real underlying educational needs at all. It is based, rather, on a set of “proxies.”

Most people would agree that to succeed in the world, a person — any person — needs to be able to **think effectively, act effectively, relate effectively and accomplish effectively.** But we do not teach those things directly to our students, nor do those things compose our curriculum.

Instead, the entire world’s primary and secondary (K-12) curriculum is, at the highest level, some form of mathematics, language, science and history (or “social studies.”) We have for ages used those four subjects as “proxies,” or “vehicles” for teaching and acquiring many of the truly needed skills.

Algebra, for example, is not something we teach our kids because they will use it —most certainly won’t after their schooling, We teach algebra as a “proxy” or “vehicle” for teaching abstract and symbolic thinking. Geometry is a “proxy” for teaching logic. The historical chronology, geography, and other details are proxies for the underlying lessons of human conflict, cooperation and change. Native and foreign languages are “proxies” for communication skills. Literature is a “proxy” for understanding human behavior and teaching students to express themselves well. Science (especially the “history of science” we now mostly teach) is a proxy for underlying skills of inquiry and skepticism.

While all of these subjects do have, for some intrinsic interest and merit, that interest varies widely from person to person. Almost no student needs all the things we now teach them. What all students do need are the *underlying skills* that the subjects we teach are “proxies” for: the ability to think effectively, act effectively, relate to others effectively and accomplish useful things effectively — in whatever particular area is of interest to them.

Today, we teach these most basic underlying skills extremely indirectly. In many cases we never even communicate to our students what the real underlying skills actually are. Some teachers may say to students “My real job is to teach you to think.” and some may students figure out on their own that “socialstudies” is not just the name of a subject, but is really about people and society. (I never did, until college.) But that’s not the norm.

### **Missing pieces**

Worse, we *don’t even have* “proxies” for many important skills —we just don’t include them at all. Effective acting, relating and accomplishing are rarely, if ever taught (or ever mentioned) in K-12 education.

Even our best independent schools — often with long lists of “character skills” they try to build — are severely limited in the scope of the underlying skills they teach —they still focus heavily on “academics,” i.e. the old “core proxies” of math, language arts, science and social studies.

But that’s not nearly enough for tomorrow’s kids.

“Proxy” education, and limited scope may have been sufficient (and even good) in previous times. Many of the needed underlying skills not taught in school were taught at home, or in the church, or through apprenticeship. The top schools taught “character skills” to the elite. And the actual (as opposed to the underlying) skills and knowledge obtained from the proxies was what many students needed back then, something they could not, in those times, obtain easily, or at all, in other ways.

So that combination may have worked in the 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> centuries — a time when education was much less universal, and the world was a different place. Clearly we had, in those times, “educated” people.

But the approach has never worked for all. And it is certainly not the education that will work, and prepare our kids, for today and tomorrow.

### **Direct or Indirect?**

Is indirect (i.e. proxy-based) education the best thing — or even a good thing — to do? Or is there a more direct way to go about education?

Imagine if — because we clearly want to teach kids to be alert and focused, and because someone realized that truck driving requires being alert and focused — we decided that every student should spend years learning to drive trucks — starting with vans in elementary school and working their way up to tractor-trailers in high school. And that we required all kids, in order to graduate (so as to demonstrate their focused attention), to handle an 18-wheeler? Ridiculous, of course. But it's not so far different from what we do now with math, language arts, science and social studies.

After much observation and speaking with kids around the world, I believe strongly that the biggest reason kids are dissatisfied with their education today — and are increasingly failing in school and dropping out in large numbers around the world — is less our outdated teaching methods (although they certainly contribute) and far more the fact that what we are asking our kids to do and learn is, for most of them, not teaching them skills they know they need for life and success. Most of what we teach will NEVER be of use to them directly, and is in the curriculum only as an outdated proxy for helping acquire the skills they really need to have. And everyone knows it.

So it's less HOW we teach that's the real problem, and more WHAT we teach. This is *incredibly* obvious to most kids, but most adults either can't see it, or choose not to.

### **Credentials?**

It is certainly true that having a credential, such as a “diploma” certifying you navigated the math, language arts, science and social studies we now teach at at least a minimal level, is useful for some things in some places. But a shrinking number of kids view mastering the math, language arts, science and social studies we offer today as crucial to their future lives. And unfortunately — despite our increasing need for technical workers and our push to get students interested in STEM careers — the kids are right. No person will be satisfied — in a STEM or any other career — because someone has insisted it was important, or because it teaches them skills “their country needs.”

But ask *anyone* — kid or adult — whether they agree that the ability to think effectively, act effectively, relate effectively and accomplish effectively are critical to success **in any field**, and you will, I believe, get a positive answer. People know what's important — so why don't educators?

### **Math, language arts, science and social studies are NOT what “education” is about**

Because we've been teaching the four “core” subjects of math, language arts, science and social studies so universally, for so long, many have come to accept those four things as what “education” is truly about. It's why people will actually believe and accept that one narrowly-focused test, such as PISA, can compare — and rank — “the education” in countries across the world.

But I submit that is false.

PISA can certainly rank 14-year olds on their scores on the PISA test. But I submit that it doesn't measure "education." Education is far less about "learning subjects" or even acquiring specific skills like mathematical thinking, and far more about people BECOMING: becoming good, capable, flexible people who can maximize their talents and reach their goals. We call that, in English, "becoming educated."

Further. I submit that "education" is, at the highest level, about a particular *kind* of "becoming." Education is — or should be — about each person becoming able to **think effectively, to act effectively, to relate effectively to others and to accomplish useful things effectively**, to the best of their capabilities — regardless of the field they choose to enter. Moreover, I believe none of those categories can be omitted to become an educated person, even though three out of the four are generally omitted from school.

Under the main categories of Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment, there are a great many skills and sub-skills to be acquired as part of an education (see further down for the list). But nothing is "above" these four main skills in terms of our educational requirements. Other skills that ought to be acquired — ethics, culture, citizenship, preparation for employment — all are part of, and flow from, acquiring the top-level skills of Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment.

Those four skills, I believe, are where we should be focusing our kids' education and attention, individualizing by passion, and using modern pedagogies and technologies that students understand, relate to, and enjoy.

The assumption that education is only—or even mainly—about math, language arts, science and social studies — and that these are the main things our kids should study in school — is a false and deceitful one. Worse, this old assumption is now leading the world, and the education of our youth, in extremely harmful directions. It is time for us to lose the "proxies" and tell our students directly what they really need and what we really want from them.

We can—and I believe we must— do this.

### **The World Is No longer What It Was In Our Times**

The reason I say equating "education" with the learning of math, language arts, science and social studies is "deceitful" is because it no longer prepares students for tomorrow's world, as we promise kids, explicitly or implicitly, that education will.

Kids no longer fall for that pitch. They know that the world they will live their lives in — i.e. the world we are educating them for today — is a new and very different one from the one *we* knew (and originally designed our education for.)

- Their new world has far more variability, uncertainty, complexity and ambiguity (“VUCA” — Google it) —than ours ever did.
- Their world’s pace of change is not just faster, but is greatly accelerating —humans have never before experienced such rapidly accelerating change.
- Their brains, extended and enhanced by our new technology, are becoming more capable, providing them with new capacities humans never had before (such as the ability, for example, to collect and analyze trillions of data points.)

And those huge changes are not even the most significant differences in our kids’ world.

The most important difference of all, I believe, is that they have a new world network — the Internet. As the Internet quickly becomes universal, all of them, and all the world’s people, are becoming connected, to all human information — **and to each other** — by an always-on, real-time, web of synchronous and asynchronous connectivity. Best viewed as mankind’s first large-scale public experiment at living in and using this new connected world, Facebook already has over a billion participants. And Facebook and its contemporaries represent only a *small first step* in harnessing and applying the network’s true power.

Already we have, said *Time Magazine* in May 2013, because of the Internet, a worldwide generation of young people more similar to one another than to their parents and elders in their own countries and cultures.

This new reality for today’s youth frightens a great many parents and other adults. But it has important implications for the future of global education — the first of which is for us to get every kid in the world online.

### **Today’s “Basics” Are No Longer What They Were in the Past**

As the world changes in so many ways, so do its educational “basics” and requirements. Nowhere is it “ordained” — important as math, language arts, science and social studies have been for us in the past — that those subjects are the “right” pillars to base our entire education on for all time — and particularly for the future.

In fact, those subjects were not codified as the basic “cannon” for education in the U.S., until 1892, when the so-called “Committee of 10” — ten college presidents, assembled by the National Education Association — recommended that those four subjects comprise the bulk of every high school curriculum. Through a combination of tradition, copying, and influence those four subjects have now become our “world curriculum” of today.

Although other subjects, including art, music, physical education, hygiene, shop, home economics, and more recently information technology — each with strong proponents — have been added at various

times to the curriculum, almost all world educators today would agree that the four “core” subjects of math, language arts, science and social studies are the “key” ones. They are the parts of the curriculum that don’t get eliminated, or relegated to after-school programs, when money is short.

### **More Math, Language, Science and Social Studies Are No Longer What’s Needed for ALL**

But mastering the curriculum of math, language arts, science and social studies we teach today, while, of course, still important for some students, does not come anywhere close to preparing ALL our young people sufficiently for their new, changing world.

Not only are those four subjects, as we have seen, just proxies for needed underlying skills, but, worse, a great many of the skills all our kids *do* need for the future are currently missing from our curriculum, especially in the important areas of acting, relating and accomplishing.

Essentially, we now focus the bulk of our kids’ valuable attention, during their most “influence-able” years, on wrong things. And this difficult and dangerous situation can’t, and won’t be “fixed” by just adding on a few “21<sup>st</sup> century skills,” as many currently propose (for reasons I will discuss in a minute.) What’s needed is a wholly new and differently-focused curriculum, one that directs our kids’ attention to the skills they really need, and not to areas that all of them need “only some of”; that directs their attention not just to fields such as STEM, but to the skills that underlie success at *all* fields.

### **Not Impossible**

Judging from the absence of complete, alternative curricula for educators to choose among, you might conclude that making an new and better curriculum is impossible. But it’s not. I am certainly not the only one to see the need for alternatives, and many have been trying to create them. And, for small pieces of the curriculum, many have been succeeding. Groups around the world have been proposing and offering needed changes and additions in areas like entrepreneurship, financial literacy, emotional intelligence, and programming.

But, up until now, the challenge of making and implementing a **wholly new, comprehensive** curriculum—one that doesn’t just try to “surround” the current subjects with other skills, but puts those other skills at the top *in place of teaching math, language arts, science and social studies to all*—is one that most educators have not rushed to take on. As one headmaster put it to me recently “Who has the “guts” to let go of math, language arts, science and social studies as the main curricular focus?” (He used a different word than “guts.”)



### What we now have

So whatever curricular innovation exists in the world — and some does — is limited not only in scope, but also limited in usage. Significant curriculum beyond the old “core” (and the arts) is used in only a relatively few schools around the globe — almost all of them privately funded. Typically, the curricular innovations are created and funded by special-interest groups with a single, or narrow purpose in mind. Laudable (though not very widely used) curricula have been produced for skills like emotional intelligence, negotiation, entrepreneurship, and the Seven Habits of Highly Effective People.

Attempts at larger-scale, comprehensive curricular change are often met with strong opposition from parents and often from educators as well. Reasons for the opposition include the belief, as we noted, that mastering the “subjects” of math, language arts, science and social studies is what education is about, and therefore what all kids need as well as an attitude of “Don’t experiment with my kid.” from parents. Yet in this time of change, we can responsibly do nothing *but* experiment in our schools.

Any large-scale large curricular reforms that do pass and get implemented, like the U.S.’s Common Core initiative, do not offer alternatives to the existing core subjects, but merely “tighten up the standards” for that old curriculum. This is not even remotely enough.

### Over-focused on the “how”

Because changing the “core” of WHAT we teach is so hard, education reformers have focused far more on HOW to teach our current “core” subjects (i.e. on our pedagogy). Although there is resistance to changing pedagogy, as well, it is, I believe, far easier for people to see the need for change in that area. This is partly because the problems with “telling” have become so obvious. But it is also because — unlike with the curriculum — experts have already formed a consensus on the best ways to improve “how” we teach.

The better pedagogy the experts propose goes by many different names (Student-centered Learning, Problem-based Learning, etc.) but all are really just “brand names” — they are all quite similar at their core. All are various ways of “partnering” with our students, rather than just lecturing to them. I believe it is clear to almost everyone that partnering works far better, in today’s context and with today’s students, than the old pedagogy of just “telling.”

So for the “how” — i.e. our pedagogy — we *know* what to do. It is now only a matter of implementing it universally (not a simple goal, but at least an agreed-on one).

But merely teaching the old — and no longer as useful — curriculum in a “better” way through new pedagogy (and new technology) is not — by itself — an effective educational strategy or solution for the future.

To really move forward, it’s time to focus on WHAT we teach.



## Technology as a “Mask”

Many would argue that educators *are* moving forward in education, by “introducing technology.” Certainly educators are doing this, and it is proceeding with varying, but often accelerating success in many places.

The problem though, is that adding technology often masks what we are NOT doing, which is moving forward on curriculum — our deeper, underlying need.

“Introducing technology,” like “reforming pedagogy” often gives the *appearance* of moving forward in educating our youth. But in reality, both are just delivering the old curriculum in new ways.. This is true of almost all the highly-touted new projects: things like Khan Academy and MOOCs, for example — innovative though they may be in some respects — **are just new ways of delivering our old curriculum.**

If done well, introducing technology and reforming pedagogy, can, by themselves, have some positive short-term positive effect on our kids’ education. Long-term, however, those things are only important *in addition to* making the curricular changes our kids need, certainly *not instead* of them.

Introducing technology and reforming our pedagogy without changing the “core” of what we teach moves our kids’ education very little into the future. In terms of really affecting our kids’ becoming educated, they are, alone, both large wastes of effort and money.

I know this to be true because I have been part of both the technology and pedagogy reforms. My first two books were about adding technology (particularly the technology of video games) to education. My next two books are about pedagogy — specifically the switch to Partnering. And in watching those reforms progress (or not progress) I learned this lesson: important as both of those reforms are, they are not the key to a better education.

All my experience and instincts tell me the really important problem in education — the one that will, if solved, have *by far* the most positive impact on the world’s kids — is reforming what we teach. I strongly believe that if we DON’T change what we teach, all the other changes are in vain.

So we must stop focusing on changing things that are *not* the basic problem and then waiting, forlornly, for our kids to get interested in becoming educated. We can do much better.

My next two books (currently in progress) — like this article — are about future-oriented education and the curricular reform.

### **“Why Not Just Add 21st Century Skills?”**

As noted, I am not the only person in the world to be thinking about curricular reform. There is a growing group of reformers who DO recognize that the basic curriculum the world teaches kids is no longer sufficient, and who seek, by adding new things, to bring it up to date.

Many of these people (they are not a single “group” but rather disparate individuals and organizations using similar terms) focus their improvement efforts on trying to get schools to add what they call “21<sup>st</sup> Century Skills” to our curriculum.

Their list of these skills (depending on the reformer) includes collaboration, cooperation, creativity, communication, entrepreneurship, problem solving, self-direction, social responsibility, technology fluency, and more. Additionally some schools — often independent — have long emphasized “character-based” education skills such as persistence, honesty, determination and other traits that are useful as well in the 21<sup>st</sup> century.

There is much right with wanting to add such skills to the curriculum. But there are some big issues.

### **There’s No Room to Add, Unless We Delete**

The first issue is that, in every case, the reformers propose adding these 21<sup>st</sup> century skills *on top of* what we currently teach, i.e. teaching them *in addition to* our current, math, language arts, science and social studies curriculum. One group’s graphic shows these skills as a “rainbow” surrounding the “core” subjects. Another’s puts the new skills in an “enclosing circle” around them. The current “core” of math, language arts, science and social studies, though always remains at the center. None of these reformers proposes eliminating this core, or even reducing its importance.

This adding-on, or “surrounding” approach (even when done thoughtfully) quickly becomes problematical. To begin with, all of our curricula are currently overstuffed and take up more than the time we have. Second, we lack good ways to merge these new skills with our current math, language arts, science and social studies teaching. Third, many teachers are not prepared to teach — and some don’t want to teach — these additional skills. Many don’t consider them as important as the math, language arts, science and/or social studies they were trained to teach.

### **The “Old Core” is Outdated**

But there is a far bigger and more important issue with the “add-on” approach. It is that, in terms of the future, **the world’s education “core” is outdated.**

Math, language arts, science and social studies — although certainly still important for many people and careers — are no longer, for the future, the “core” skills they once were for the past. Certainly much of what those subjects contain is important in some cases. But in our increasingly differentiated world, those subjects are no longer important for *all* students in the same way — each student requires a different amount and focus.

And there is now a new core, a different core, of skills that is far more important and necessary.

Even reading and writing, long seen as the most important foundation and core of an education, are transforming in our times, and changing in relative importance as they comport, in new and complex ways, with digital tools and social media. “Literacy” is expanding to include skill at video and other new communication tools.

Aided by new technologies, people are increasingly succeeding in the world with different mixes of skills than people have had in the past. The question of “What amount of reading and writing is still “core” for all student to master to succeed at, and how much is individual-dependent in a world of more and more media and opportunities?” is becoming a key question of our time.

It is not yet generally accepted among educators (or parents) that math, language arts, science and social studies are no longer the “core” subjects all our students need, but there are increasing signs of change—and, of course, of resistance.

### **Our Changing “Core” Makes Many Uncomfortable**

It turns out that many of the things that, for centuries, students struggled so mightily to learn and master, were necessary only temporarily — they were useful only until we could invent better ways to acquire the needed skills. And now we have those ways.

More and more people are starting to recognize that **there are other, more direct ways to “educate” our students than by having everyone take math, language arts, science and social studies for all of their school career.** Why not, the people ask, focus directly on the underlying skills (e.g. persuasion, logical thinking critical thinking) that kids really need? Why continue teaching “proxies” that were once useful but no longer are to the same extent? Why in an age of personalization, should we not have each student acquire those underlying skills through their own particular interests, rather than providing the same subject matter for all?

Such changes are difficult for people to accept — and sometimes even think about — because it was not how *they* were educated This is an extremely thorny issue because education is personal to all of us. Most of us who are now adults put huge amounts of work and effort to learn the traditional math, language arts, science and social studies curriculum. Because we put in so much work to learn all those things, and are proud of our own mastery, many of us think of these things — despite the fact that we hardly use any of this at all in our lives — as education’s “basics” and “core”

To say that our kids do not have to do this — that it is not the best way to prepare them for the world — rankles, often big time. Influenced by our own experience (and perhaps our former teachers' admonitions) we see math, language arts, science and social studies as important *in themselves* — rather than as the “proxies” they really are. We, today's adults, therefore have a great deal of trouble letting these “once-core” subjects go.

### **The World Has Moved On**

But the world has moved on since today's adults were educated. We have gone, in only a short time, from the last Pre-Internet generation to the first Internet generation. And — difficult as it may be for some to accept (since we worked so hard to acquire them) — many skills that were hugely important to the pre-Internet generations are now less useful in the world. “Cursive handwriting,” “computation by hand” and “knowing details” are just the beginning of what kids no longer need.

But of course they need other things. As society evolves, our curricular needs change. No longer does a person have to know Greek and Latin, or have memorized long passages and tables to either be considered “educated” or to succeed in most fields, as they once did.

But many other human skills — long known-about but not part of formal education— have now come to be recognized as crucial for our kids' future. Action skills, relationship skills and accomplishment skills are among the most important of these “formerly-missing-and-now-recognized –as-necessary” skills.

But “official” curriculum is slow to catch up, and today our curriculum is way behind the world. This is partly because of the rapid growth of technology, which many can see, but it is even more because, as technology increases many of our capabilities, there is a concomitant need for more and better “human” skills (something that is often less obvious).

### **Specious Arguments**

It is often said that because we all go through education, everyone has an opinion about it. But many of the arguments people raise over and over again for NOT changing the curriculum are specious.

For retaining hand methods for doing things, for example, the specious argument is “What if the power goes down?” (Truth: It rarely does, and when that happens we quickly fix it.) For retaining old, pre-computer algorithms for computation it's “Today's kids can't make change without a machine.” (Truth: in the future, with technology, none will have to.) For teaching all the details of history it's “Those who don't understand the past are doomed to repeat it.” (Truth: the world has changed and many once-useful patterns will no longer hold or repeat.)

And for a great many things, the argument boils down to just the specious “I had to do it, so why shouldn't they.” And so our painful hazing of kids in school with things they don't need continues, generation after generation — but under the nicer-sounding name of “tradition.”

Of course, in some parts of the world things are different. There are still places where the power does go down often. But the global trend is clear.

Many of the arguments against curricular change are about culture — many people fear losing theirs. But we need to separate “cultural retention” for our kids from what global education requires for them. We must learn to help kids learn to appreciate the cultures they came from without keeping them in the past.

We must also understand that no one is suggesting we should drop the “old” subjects entirely, but only that we change the “core” of what we require every student to go through. Math, language arts, science and social studies are still there — and will always be — for every student who needs or wants them. What I am arguing for is putting those subjects lower down in our priorities for *all* kids, and not requiring the same amount of them for everyone.

### **New Basics, and a New World K-12 Curriculum**

The issue is that today’s math, language arts, science and social studies curriculum — overstuffed as it is — is far too narrow cope with today’s world.

Because of our world’s huge transformation trends — to VUCA, to accelerating change, to extended brains, and to everyone being networked together — we require a new set of “basics” to teach all our kids. What we need is a curriculum that is NOT based just on tradition, or on the past skills of math, language arts, science and social studies surrounded by a limited number of “21<sup>st</sup> century skills,” but rather a curriculum based on what is our kids need to be successful in the future. Today’s curriculum, designed for an earlier time, cannot provide this — certainly not for everyone.

Bear in mind that to design a better curriculum we do NOT have to totally abandon the past — certain math, language arts, science and social studies, of course, ARE still important and can be retained. The issue is, rather, that in our new world, the old skills and subjects are *not required in the same way by everybody*. And, at the same time, there are far more important skills—many of which are currently not part of our education—that *are* required by all. A great many fundamental and long-known-about human skills that we *don’t* now include in our curriculum need to be brought back to the forefront for the future.

### **An Alternative**

It is important to bear in mind that having math, language arts, science and social studies as the fundamental, top-level components of the curriculum is NOT the only way to organize “education” — there are many other ways. And it is becoming clear that, despite our educational history and traditions, some of those ways are far better for the students of today and tomorrow.

I am not the first to think this, of course. There are schools all over the world teaching curricula of many different sorts. But the issue, as I see it, is that almost all of those schools still consider math, language arts, science and social studies to be “the core” of education (or of what our kids need to succeed.) So they make whatever changes they do *in addition to* teaching math, language arts, science and social studies, rather than *instead* of them.

I propose something very different.

### A “Better” World Curriculum

What if, instead of organizing our education at the top level by the four subjects of math, language arts, science and social studies — and measuring and evaluating our kids only on them (e.g. “How good are you in math? What’s your verbal SAT score?” “What is your country’s PISA ranking in science?”) — we chose a different framework for our education.

Suppose we were to organize education—comprehensively from kindergarten to secondary—around four very different “top-level” subjects. What if we organized education around the key things that are *actually important to the success of every person in the world?*

I believe, that if we did this, those four subjects would be the following:

**Effective Thinking,  
Effective Action,  
Effective Relationships and  
Effective Accomplishment**

Those are the top-level skills that people — any people — need to be good at to have a useful and successful life — no matter what their location, work or interests.

“What do you mean by ‘effective’?” you many well ask. The adjective is there, for me, not as a definition (effective takes a huge variety of different forms) but rather as a distinguisher from “ineffective.” Most of us have learned to recognize the distinction between effective and ineffective — although often it’s difficult. As part of their education, our young people need as much practice as we can give them in doing so.

So — with the qualifier of “effective” — thinking, acting, relating and accomplishing are the four main subjects of this new curriculum. All students “take” them as their four main subjects for 13 years. They are what students get assessed and graded in. And unlike the subjects of today, the names of those top-level subjects — Thinking, Acting, Relating and Accomplishing — make it very clear to the students what their education is about, what they should become better at, and on what criteria they will be evaluated.

## The Sub-Categories

Three of the four main subjects of the curriculum are further broken down into sub-categories. These include:

### Effective Thinking

Critical Thinking  
 Mathematical Thinking  
 Scientific Thinking  
 Creative Thinking  
 Problem-Solving  
 Inquiry Skills  
 Argument Skills  
 Design Thinking  
 Systems Thinking  
 Judgment  
 Aesthetics  
 Habits of mind  
 Self-knowledge of one's  
 - Passions  
 - Strengths  
 - Weaknesses

### Effective Action

The Habits of Highly  
 Effective People  
 Mindset  
 Resilience  
 "Grit"  
 Entrepreneurship  
 Innovation  
 Improvisation  
 Breaking barriers  
 Project Management

### Effective Relationships

Communication &  
 Collaboration  
 - One-to-one  
 - In teams  
 - In a family  
 - In a community  
 - At work  
 - Online  
 Relationship-building  
 Empathy  
 Ethics  
 Politics  
 Citizenship  
 Negotiation  
 Conflict Resolution

The fourth main subject, "Effective Accomplishment" consists of doing projects in the real world. Small, or local projects and group and individual accomplishments in the early years, and larger, eventually worldwide, projects and accomplishments in later years. The categories of projects will depend on the interests and passions of the particular students, the needs of the community and world, and the skills teachers feel it is in the best interest of individual students to acquire or improve.

It can be easily seen that most of the above sub-topics are not today covered, either systematically or at all, in almost any school. It should also be noted that even *all* of the so-called "21<sup>st</sup> century skills" proposed comprise only a small fraction of the skills kids need to learn, as do other proposed frameworks such as the so-called "4c's" (Communication, Collaboration, Creativity and Critical Thinking).

## What About Today's Subjects?

Math, language arts, science and social studies, of course, will never disappear. Different aspects of these subjects will still, in the new curriculum, be studied by students. But not in the way they are today as core threads for everyone.. This is because — importantly — math, language arts, science and social studies are *not needed, or useful, in the same way for everybody* — they are important in different ways,



and to differing degrees, to each individual, based on that student's strengths, interests and passions. So each student needs a different amount of — and will receive a different (and appropriate) amount of — each.

But Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment, on the contrary, are important to *all* students, at *every* grade level. It is crucial for an effective education that every student strive to get as good as they possibly can at each of these overarching skills.

What's more, all of us know this. Parents know it. Educators know it. And most importantly, kids know it.

### **Knowing Your “Profile”**

Just as every student, today, is better at some subjects than at others, each student will have a somewhat different profile of new curriculum strengths. Knowing whether you are a person who is best at thinking — or at acting — or at building and maintaining relationships — or at accomplishing things in the real world, is far more meaningful than knowing you are better at doing math, language arts, science or social studies.

This is certainly true for each student, but it's also true for their potential employers. Understanding someone's relative strengths in the areas of thinking, action, relating and accomplishing is really how we all, in our heads, evaluate people. One's grades in math, language arts, science and social studies — and even one's personal recommendations and portfolio evaluations — are just more “proxies,” and supporting evidence, for what we *really* want to know about kids — i.e. how well they think, act, relate and accomplish.

### **Frequently Asked Questions**

Even if you agree that mastering, to the best of your ability, Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment is truly what's important for success, and you further agree that those four subjects would be good candidates to replace math, language arts, science and social studies at the top level of our curriculum (with the old subjects offered differently to different students) several questions might come to your mind.

For one, how central do reading and writing remain? They have been the foundations and underpinning of our curriculum for centuries, and they remain foundational. But it is important to realize two things:

Reading and writing are no longer the *only* foundations. Text is no longer “all.” Technology, especially in the form of video and voice connections, is quickly becoming equally foundational. “Video is the new text,” says consultant mark Anderson.

Also, reading and writing are evolving and morphing as they comport with digital tools and social media. Things available previously in text only are now available in multiple formats. This includes books, news, magazines, business communications, training, how-to instruction, and much more. Voice-to-text and text-to-voice technologies have improved tremendously in the last decades, and will continue improving exponentially in our kids' future.

So while one can still correctly make the case, that a non-reader or writer (or a poor one) is handicapped on the Web, with the new vice-input and video tools that deficit quickly diminishing Searching, texting, emailing and reading can all be done without recourse to any text at all. Anyone who is sight-impaired or who suffers from carpal tunnel syndrome can attest to this.

A second frequent concern is that, if we are to make Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment our four top subjects, is there enough in each of these four areas to keep students usefully engaged in learning about them for up to 13 years?

A third often-asked question is “What would the curriculum actually consist of?” And a fourth is, “How would we teach this new curriculum?”

Let me answer by examining each of the four proposed new subjects — Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment — in turn.

### **Effective Thinking**

Here are some of the components that would be in the “effective thinking” portion of the curriculum:

- Critical Thinking
- Mathematical Thinking
- Scientific Thinking
- Creative Thinking
- Problem-Solving
- Inquiry Skills
- Argument Skills
- Design Thinking
- Systems Thinking
- Judgment
- Aesthetics
- Habits of mind
- Self-knowledge of one's own passions and strengths.

Almost anyone would, I believe, agree that all of these are important. Yet today, other than the top three, these are not things all kids are taught in our K-12 curriculum.

Not that teachers, and schools, don't teach some of them — some do. But not *systematically*, in a way that is comprehensive and likely to get them acquired. The only components we do teach systematically

to all are reading and mathematical thinking. More recently scientific thinking, critical thinking and problem-solving may also be included in this group.

But all of the other “thinking” skills, including the extremely important skills of design thinking, systems thinking, judgment, aesthetics, habits of mind, and self-knowledge of one’s own passions and strengths (and, of course, others), are NOT taught systematically as part of our curriculum.

And even those areas that are taught are often approached more in terms of “content” than of “thinking.”

A result of this approach is that today many of our college teachers complain, frequently that “I have to teach my students to think.” But college not the time to be starting this — it is probably too late for most. Our kids should be spending a much larger portion of their K-12 time learning, systematically, to think effectively. So “Thinking Effectively” should be a top-level subject for every student.

But thinking, you might ask, about WHAT? Many academics argue that thinking has to be “domain-grounded,” and, while there are differences of opinion on the subject, they may very well be right.

But *which* domain doesn’t matter, as long as kids learn to do their thinking well. All of the fundamentals of good thinking can be learned by considering situations and problems in whatever area is of interest to each individual student.

There are some things, of course, that we would like *all* of our kids to think about—ethics, and forms of government, for example. But there are I believe many fewer of these than most think. A key principle in education should be “General skills for all, individual examples for each student.”

For example, I recently heard of a math course that begins by analyzing mathematically the question “Am I popular.” While this is important to many young people, other students might have their own questions to analyze mathematically. And all of those same questions can also be analyzed in many other ways as well. So we do not need a textbook full of “officially” “appropriate” or “relevant” problems, because *any* problem of appropriate scope and level can be used to teach the components of effective thinking. We will never run out of these.

The positive result of doing this is that we would focus our students’ attention far less on the subject matter, and far more on the way they approached thinking about it. After taking “Effective Thinking” for 13 years, students would come out able to think effectively about *almost any* problem or issue in multiple ways — wearing, as Edward DeBono puts it, multiple “hats” or “thinking caps.” Our young people would also be able to recognize which types of thinking were *ineffective* in particular situations, something that today’s kids are not, for the most part, focused on or good at.

So we certainly can — and I believe we must — teach the crucial subject area of “Effective Thinking” more specifically, more systematically, and better than we do today in our curriculum..

But another big part of our educational problem today is that most curricula are ONLY about “thinking.” Other huge domains that are crucial for life and success — particularly acting, relating and accomplishing — are almost entirely missing.

But not in this new curriculum.

### **Effective Action**

Everyone is familiar with people who know lots of things, but can't do much. One good reason for this is that we hardly ever teach — or don't teach — effective action in school. But we certainly could.

Thanks to Stephen Covey, for example, The “Seven Habits of Highly Effective People,” have been known and recognized for over a quarter of a century. What justification can there possibly be for our being aware of these incredibly important habits, yet not teaching them, systematically, to our kids? (The habit are: Begin with the end in mind, Do first things first, Be proactive, Seek first to understand, then to be understood, Think win-win, Synergize, and Sharpen the saw.) Having learned them from his books, I use them every day, and try to regularly practice all of them. Our kids could too —but they generally don't learn, or practice, these habits in class. Ironically, the Covey Institute has developed a curriculum to teach the habits to students, so we even have good ideas about how to do it. This curriculum is used by some schools. But not by most.

components of effective action that we could and should be teaching our kids include Positive Mindset, resilience, “grit,” entrepreneurship, innovation, improvisation, breaking down barriers, project management and more. There are experts — and often already developed curricular units — in almost all of these areas. But they are not part of our standard curriculum. Why not?

Here's just one simple example: We often have our kids read, in kindergarten, (in the U.S. at least) the story of *The Little Engine That Could*. A useful introduction to positive thinking. But then we don't systematically follow up and build on this by teaching teach the incredible power of a positive mindset (as shown, for example, in the work of Carol Dweck), for the subsequent 12 school years.

Or we say to our kids we want them to be resilient, but we don't *teach* them resilience over our entire curriculum, even though it's a skill acquired largely though practice over time.

There exist, around the world, curricula for teaching entrepreneurship and creativity, but few of our K-12 schools use them. Few schools, if any, include project management anywhere in what they teach, even though it's a well-established and highly useful discipline, valuable in any walk of life.

Again, we *could* do this. Doing so would be incredibly helpful to our kids — imagine what they could accomplish if we did.

### **Effective Relationships**

Many consider building and maintaining effective relationships to be the most important skill a person can possess. Relationships, of course, do often come up in school — in classrooms, in projects and in literature.

Yet how much of our curriculum is devoted to systematically analyzing those relationships, with the goal of making students better at building and maintaining their own effective relationships?

The answer is little, if any, despite the fact that the study of relationships is deep and well known. Again, many curricular units on “emotional intelligence” and “social skills” already exist, but are not widely-used.

Most teachers *do* try to help kids deal with one-on-one relationships and issues as they occur in the classroom (although not, generally, as part of the curriculum.) But they could also be helping their students, particularly if it were it in the curriculum, become far more effective at building and maintaining relationships in teams, families, communities, workplaces, and, of course, online.

We could also systematically be helping our kids become more effective at skills that help build effective relationships, such as empathy, ethics, politics, citizenship, negotiation, and conflict resolution. Yet again, for almost all of these, there already exist curricula created by various groups.

What if we made building and maintaining effective relationship a key pillar of the world’s curriculum?

### **Effective Accomplishment**

Of all the things missing from today’s curriculum, not teaching our kids, systematically, about *accomplishment in the real world* is perhaps our greatest failing. I say that because, if we did, it could improve so many important things. Today, we essentially waste almost all the enormous potential “accomplishing power” of our youth, by not requiring them to use it.

Imagine, for example, if “first grade” in any of the world’s poor villages lacking a water cistern was about building one. And “second grade” was about building a water purification system. And “third grade” about building a Wi-Fi system, and so on. The same principle, of course, could apply to any place, rich or poor — just substitute whatever they are missing and need, e.g. facilities for seniors, better connectivity, etc.

We stopped our kids from working in the real world in former times because the kids were often physically exploited. But times are now different. Much of the work to be done in the world today no longer requires physical work, but rather intellectual work (e.g. designing creating and coding on computers.)

All kids, even our youngest kids, love to work on real, important projects. Most can figure out how to manage themselves, both as individuals and groups, particularly as they get older. Students of all ages, joined together on our increasingly powerful networks, could be accomplishing enormous numbers of desperately needed things in the world — not just in their local areas, but in nations, and businesses around the globe.

All of these projects would be giving our kids powerful and valuable educational experience. We should not only be encouraging this, but using our curriculum to help kids do it systematically,

throughout their K-12 years. If we did this, our kids could leave school not just with a transcript of their grades, but with a resume of what they have accomplished in the world.

### **The Role of Technology**

What I am proposing here is a curriculum for the future. Yet you may have observed that up until now I have hardly spoken about technology. Why is that?

The answer was provided to me, a few years ago, by a high school student, who said: “You guys [i.e. adults] think of technology as tools. We think of it as a foundation —it underlies everything we do.”

Technology’s role in the new curriculum is as a foundation — a support for everything we do. The entire curriculum I propose here should be thought of as bathed in, and supported by technology — which, these days, is rapidly and continually improving.

This is a similar foundational role, of course, to that provided by reading and writing — also technologies) — or the last several hundred years. That foundation is now giving way to a much broader technological foundation for education.

While the four overarching “core” skills of the new curriculum — Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment — remain the same for all students, technology enables each student, every day, to do individualized work on each of those four key skills, as well as to do many old things faster and better.

Importantly, however, even though it is a curriculum for the future, the new curriculum does not focus *primarily* on technology. Its goal, rather, is to use technology — in as powerful and up-to-date a fashion as possible — to help improve our students’ becoming better at Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment.

### **The Role of Teachers**

And what of teachers? What is their role in this new curriculum? Will it change from what it is today?

Teachers — good teachers — continue to play a huge and important part in education, and in this new curriculum. Adults will always have an important role in educating our kids — we need good teachers desperately. But the teacher’s job, and role, will never again be the same as it has been in the past, or is today.

*We no longer need our teachers to be the distributors of content about math, language arts, science and social studies.* Already, technology can do a reasonable job of distributing all of our content — in more and more interactive, participative and creative ways — to those students who require it. The “Khan Academy” and “MOOCs” of today are already to do this, and they should be seen as, and evaluated as,

only our very first baby steps. Technology's capabilities will continue to improve rapidly. Soon technology will be doing a *great* job on the content side.

But technology can't, and shouldn't, do everything in education.

For one thing, a great many —perhaps all — of the new skills and sub-skills included in the new curriculum require *nuance* — nuance that, for now, only a human can provide. Educators must work with technology to assure that the technology does what it can do best — e.g. provide lots of differentiated and individualized examples — and that humans do what they do best, —e.g. help students understand and interpret those examples in all their human complexity

We also need good teachers for the extremely important things that technology *can't* do at all. These include motivating our students deeply, respecting our students, empathizing with them, and encouraging their individual passions. Motivation, respect, empathy and passion do not — and will not (at least for the foreseeable future) — come from machines. Those are the *human* traits needed for a successful education. They are the things we require our human teachers to provide.

And additionally good teachers are required for teaching our students to teach themselves, deliberately and well, for the rest of their lives, as they will have to do.

The training and preparation (and licensing) of teachers for a curriculum organized around Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment, will, of course, have to be different from that of today. Most teachers will no longer be specialists in math, language arts, science and social studies, but rather they will become specialists in the four new top-level areas of: Thinking, Action, Relationships and Accomplishment. You might want to reflect a moment, as a reader, on which of these four new domains YOU might be interested in specializing in and/or teaching. What would draw you there?

### **Will it work?**

“Interesting, but will it work?” is something that will be asked by many (by funders especially, but also by educators and parents.) Will it work, importantly, not just in the small sense of raising achievement scores (we would need new tests for this), but in the larger sense of making the world, over time, a better place, with better-educated people.

The only honest answer is “we don't know.” But since our current education is now failing, we need alternatives — something we don't currently have enough of.

There are, however, many reasons for optimism; reasons to think that this new curriculum, or something like it, will work, in some useful sense, for a great many more kids than does today's curriculum of math, language arts, science and social studies.



For one thing it is a lot more direct – it lets students know exactly what is important and we want from them. And it is also becoming apparent to many that kids can deal with concepts — and like to — far earlier in life than many of us thought.

It is also becoming clearer that people learn and accomplish far more when they are applying concepts to their own areas of interest, and not to general problems manufactured for all.

And finally, we know from centuries of apprenticeships that people learn well through accomplishment.

But, asking whether a curriculum based on “what people really need to succeed,” and on “individual passion-based examples for each student,” and on “real-world accomplishment rather than just learning” in fact “works,” is not like, asking whether some new test preparation software works. The goal of having all people becoming educated, and of having a world where all — or at least more — people can think, act, relate and accomplish effectively, is a complex one. Comparing two systems as different as our current curriculum and this new one will not be easy.

In a sense, it is perhaps more like people in the 18<sup>th</sup> century asking, “Will a system based on people governing themselves — i.e. democracy — work?” The answer is not something we can or will measure precisely, determine quickly or easily, or judge by small, controlled experiments. Society, is far too complex for that. At some point someone will have to take a leap of faith, as the fledgling United States did, and run a “grand experiment.”

### **Will it work *for all*?**

This is proposed as a “curriculum for all.” So a key question is whether this new curriculum will work — and work better — *not just* for the top ten percent of our kids (almost anything will work for them) but also for the remaining 90 percent, as well as for kids who are not today receiving any formal education at all. Because the strongest arguments for this curriculum are (1) that it is both more useful and (2) that it is passion-based, there are strong indications that it could.

In the end, any curriculum is only as good as its implementation, and this is never uniform. Teachers will have to be trained, and become good at implementing this new approach. Education, like democracy, takes many forms, and has implementations that are very different, so, in all likelihood, will this curriculum.

It is imperative that we do think about and try new approaches to our curriculum — approaches that are different and more suited to our world and kids of today and tomorrow than the single one we now have. My argument is not that this is the ultimate alternative but, rather, that we need alternatives. This new curriculum is offered in the spirit of this need for experimentation and change.

What we are really changing, of course, is our underlying philosophy about education. The underlying philosophy of the new curriculum is that focusing education on Effective Thinking, Effective Action,

Effective Relationships and Effective Accomplishment, acquiring those skills through students' individual passions, and applying them to life through real-world accomplishments will be a better approach than focusing everyone on math, language arts, science and social studies.

One thing we can say with certainty is that this will not harm our kids. It will clearly benefit many — and I believe all.

### **How to Name It**

What should this new curriculum, based on Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment, learned and expressed through individual passions and real-world accomplishments be called? I still don't have the final answer to that question. I have in the past referred to it as "eTARA" (the acronym for Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment) and as "The UPLIFT Curriculum." Neither of these is fully satisfying. It may turn out to have many names, depending on who implements it.

Whatever it is called, a key role of this new curriculum will be to bring to an end the endless chase for higher grades, and better test scores in the narrow domains of math, language arts, science and social studies. There is no longer a need to chase those false goals, because it is now clear that those "old" subjects are really just *proxies* for the real supporting skills that lie under them. We must now focus on, and teach our kids the underlying skills directly.

### **Who Will Be First?**

Many countries and schools around the world have been trying to improve the old curriculum for decades — centuries, even — with almost nothing to show for it. Major reforms have led to, at best, limited gains or minor adjustments in rankings. The world's education, in general, is getting not better, but worse—all because, I believe, we are teaching the wrong things.

Struggling to move up in the PISA rankings is like fighting the last war — the phase of education that PISA measured (if it even did) is over. I believe that today there are some countries, and far more individual districts and schools in the world, that are interested in climbing off this futile treadmill and moving to something better.

If some places do — and if they offer their students a curriculum based on making all students the best they can be at Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment — I believe their students will leapfrog others, and become quickly better than students in places that don't — anywhere in the world — at reaching our future goals. I believe, in short, that the students, and places who adopt this new curriculum will be "uplifted" by it.

Which will be the first country, or school system, to do this? My guess is that it is unlikely to be any of the nations at the top of the PISA list. But once some do begin to implement it, and when, as a result,

we have new and better measures of where kids are succeeding at the things that really count, our new rankings will look very different.

### The Goal of Education

Underlying our need to change the curriculum is a new—or revised—understanding, not just of our changed context, but of what education is *for* in our society—what its goal is.

If asked “What is the goal of education?” many would answer it is “learning.” “Learning” is what we try measure in our assessments. We often refer to our students as “learners.” Almost all the books found in the “education section” of bookstores today — online and off — are about some type or method of “learning.”

But learning is NOT the real goal of education — certainly not any more. Today “learning” is only a MEANS to the real goal of education, which is “BECOMING”: becoming a good, capable, and flexible person, who will help make the world a better place.

“Becoming” is — or should be — the real goal of education in the world, the goal we pass on to our children. And until everyone realizes this, accepts it, and acts on it, much of the huge amount of time and money the world now spends on education will remain, essentially, wasted.

It is my great hope is that by moving to something like the new curriculum described here, and by focusing our young people, therefore, on the “true” basics of Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment, acquired through individual passions and applied to helping the world — rather than focusing kids on what we teach kids today — the world will take giant steps toward the goal of effectively educating all its people — and, therefore, towards making the world a better place for all of us, and our posterity, to live.

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