What I've Come/
Am Coming to Believe

"Reframing Capitalism":
A 15-Point Human
Capital Development
Manifesto/HCDM
at the Enterprise &
National Government Level

Manifesto/Polemic:
Best Teacher Corps Wins!

What I've Come/Am Coming to Believe

Be warned! What follows is disorganized and half-assed! In a recent post, I provided a reading list of sorts. I am a voracious reader—but in the last few months my voraciousness has turned to frenzy. In 2012, I may have closed off a chapter with the publication of a 23-part,4096-slide fully annotated presentation of, de facto, "everything I know," which we call MOAP/Mother Of All Presentations—you'll find it, available for free downloading, at excellencenow.com. As the culmination of that effort occurred, happenstance led me to Seoul for a speech on 14 June 2012. The concomitant conference was grandly called "World Strategy Forum/The New Rules: Reframing Capitalism." I was the only keynoter who was not a finance minister or former finance minister or prime minister or former prime minister or prominent (e.g., Nobel-level) economist. I humbly came at the gargantuan issue from the perspective of "the work itself"—my life's work for 30+ years. I felt at sea, and did not really find my thoughts coagulating until I got home. The immediate product was a draft 10-page paper which I titled "'Reframing Capitalism': A 15-Point Human Capital Development Manifesto (HCDM) at the Enterprise & National Government Level." (I have included that draft as Appendix ONE to this brief paper—my conclusions as of June, as you will see if you read the Appendix, have been significantly altered by what has transpired between my ears in the subsequent six months.) Upon completing the attached post-conference draft, the aforementioned reading binge began in earnest—launched with a re-reading of Ray Kurzweil's mind-zapping The Singularity Is Near*—the entire, idiosyncratic reading list is at Appendix TWO.* Subsequently, I guess I could say, I've been indulging in the "futurist game"—something that I have typically avoided like the plague itself. But at some point, one must put the books aside and see if one can figure out what one thinks. Hence the brief (remember, disorganized and half-assed) paper attached is a scribbling. For me, this means stream-of-consciousness scribbling which appears from thin air after life-to-date plus an intense recent regimen of provocative reading. I decided to use 1 January 2013 as a punctuation mark, and to get something of some sort "up"—in this case at tompeters.com. So here it is, at least as much for me as for you:*

1. ***The power to invent (and execute) is switching/flipping rapidly/inexorably to the network.*** Commercial as well as personal affairs are singularly and collectively "migrating to the network." Alliances of unimaginable complexity (as well as simple ones) are being formed, reformulated, spurting to unimaginable size—and dying off—by the nanosecond. Any given organization, including rather new organizations, is "losing control" of its future by yesterday's typically rigid standards. Acknowledging/Embracing/Rejoicing in this and experimenting at a lightning-fast pace with new/radically different forms of organizing (organiz-*ing*, not organization; it's an "ing" world) is a survival necessity. Key word is "experimenting," or, more accurately, "playing" with untrammeled vigor.

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*If I could force you to read just three books, they would be: *Race Against the Machine: How the Digital Revolution Is Accelerating Innovation, Driving Productivity, and Irreversibly Transforming Employment and the Economy*—Erik Brynjolfsson & Andrew McAfee; *Reality Is Broken: Why Games Make Us Better and How They Can Change the World*—Jane McGonigal; *The Power of Co-Creation: Build It With Them to Boost Growth, Productivity, and Profits*—Venkat Ramaswamy & Francis Gouillart.

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2. As I and others have said in the past, the fluidity of the movie industry and professional service industry and construction industry are more or less traditional role models that actually "prove" the plausibility of today's shape-shifting. The sorts of organizations that populate these industries have always lived with instability/ fluidity/project-centrism; and the participants, from assistant grip to junior accountant to senior accountant to producer, have lived with these destabilizing characteristics. *So there is much new under today's sun, but perhaps some sea anchors from the past which suggest that one can survive—and thrive—in such inherently unstable settings.* (Also, and this is a longtime bugbear of mine, fact is that, unseen and unacknowledged by the "business guru class," a sizeable share of the population has lived with uncertainty and "no guarantees" from start to finish of their professional lives—e.g., your local electrician and plumber!)

3. *The Internet must stay open and significantly unregulated to enable, among other things, the entrepreneurial spurt that will (and is the only thing that can) significantly underpin world economic growth.* One imagines that those who enact significant restrictions will pay an extraordinary economic price. We are, of course, impaled on the horns of a dilemma. On the one hand, intellectual capital is the (only, more or less) coin of the realm; its value must therefore be protected—yet that value is only fully realized via the Net/networks which necessarily run roughshod over intellectual property exclusivity.

4. *Entrepreneurial behavior and upstart entrepreneurial enterprises have underpinned every monster shift in the past, such as farm to factory.* Traditional big businesses will probably survive for longer than the alarmists imagine—but many/most will become irrelevant or disappear. Success rates among entrepreneurial firms will be low—but over the mid- to long-term, what matters is that the denominator (firms founded) is high enough to ensure a passel of breakout firms; it is that relatively small fraction of "growth companies" that provides the bulk of new jobs.

5. *But some giants will necessarily survive.* For example, the information infrastructure must be robust; hence the basic utilities will likely have to reside in large, stable organizations—e.g., Microsoft de facto fulfilled such a role for 20 years as computing migrated to the desktop; what some called "unimaginative" was a necessary attribute for widespread, coordinated global adoption.

6. *While a Google may be a dominant player for a time, an obsession with (or even the existence of) a "Fortune 500" of more or less stable giants dictating "the way we do things" will likely become an artifact of the past.*

7. *There is simply no limit to invention or entrepreneurial opportunities.* We have not and will not ever run out of "wants." Some may be appalled by this, but it is hard fact. The creation of a jillion quirky innovations associated with a revolutionary technology is eventually sorted to the point that there are a handful without which we cannot live—e.g., the electric power grid and global positioning systems and now the Internet.

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In *Race Against the Machine,* MIT professors Erik Brynjolfsson and Andrew McAfee put it this way*, "We are in no danger of running out of new combinations to try. Even if technology froze today, we have more possible ways of configuring the different applications, machines, tasks, and distribution channels to create new processes and products than we could ever exhaust."*

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8. *The new star bosses will be "wizards" or "maestros."* The chief skills of the chief-of-tomorrow will involve creating ethereal organizations to execute agreed-upon projects—from small to humongous. The projects as well as the data will live in something resembling "the cloud." These "bosses" (who are not bosses by yesterday's "command & control" standard) will get off on uncertainty and ambiguity and lightning-fast iterations and bushels of fast failures and rapid shape-shifting. (Slightly more traditional structures will be, I'd guess, required for the likes of logistics and various utilities—though logistics is obviously a network endeavor, subject to the plastic parameters of networking.)

9. *Sources of sustained profitability will often be elusive.* An advanced barter economy is already emerging. The "CFO" job, like almost all others, will disappear as we've known it. "Profit gurus" will build business models and find ways to temporarily monetize (a term I used to loathe) the products of a network/set of networks. These Profit Gurus will have their own network—they more or less already do in the form of a host of flavors of venture capital. (Among other things, "angel" investors are of the utmost importance to an entrepreneurially activated economy.)

10. *Control and accountability will be a delicate dance.* On the one hand, we need a "the buck stops here" process, including appropriate regulation; on the other hand, the control

system, too, will be significantly "emergent"—to a far greater degree than normal, projects will repeatedly redefine themselves as they progress and "Who's in charge?"/ "Who signs off?" will be unstable.

"We are in no danger of running out of new combinations to try. Even if technology froze today, we have more possible ways of configuring the different applications, machines, tasks, and distribution channels to create new processes and products than we could ever exhaust."

—Erik Brynjolfsson and Andrew McAfee, *The Race Against the Machine: How the Digital Revolution Is Accelerating Innovation, Driving Productivity and Irreversibly Transforming Employment and the Economy*

*"All human beings are entrepreneurs. When we were in the caves we were all self-employed ... finding our food, feeding ourselves. That's where human history began ... As civilization came we suppressed it. We became labor because they stamped us, 'You are labor.' We forgot that we are entrepreneurs."***—Muhammad Yunus/*The News Hour*/PBS/1122.2006**

Trial and error, many many many trials and many many many errors very very very rapidly will be the rule (think dotcom boom and bust—and, in fact, the incredibly valuable residual in terms of entrepreneurial training and ideas surfaced and approaches rejected); tolerance for rapid learning— and unlearning—will be a most valued skill. (FYI: "Gamers" instinctively "get" this—lots of trials, lots of errors, as fast as possible—in ways their error-avoiding elders can only imagine; hence, for this reason among many, "the revolution" is/will be to a very significant degree be led by youth.)

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1/47: Action Rules! The ONE Thing (Only) I've Learned (For Sure) in 47 Years!

A bias for action.
(No. 1 "Attribute of Excellence" from *In Search of Excellence*.)

"Ready. Fire. Aim."

(H. Ross Perot/EDS. As compared to GM's "Ready. Aim. Aim. Aim. Aim. Aim. …")
Just do it! (Nike)
Move fast, break things. (Facebook)
Experiment fearlessly. (Trait #1/Great innovator companies/*BloombergBusinessweek*)
Relentless trial and error. (Survival Tactic #1 in crazy times/*Wall Street Journal*)
"You miss 100% of the shots you never take." (Wayne Gretzky)
"Fail. Forward. Fast.
"Fail faster, succeed sooner." (IDEO.)
"Fail. Fail again. Fail better." (Samuel Beckett)
"Reward excellent failures. Punish mediocre successes."
Whoever Makes the Most Mistakes Wins. (book title, Richard Farson)
S.A.V./Screw Around Vigorously
Demo or die. (MIT Media Lab)
"You only find oil if you drill wells." (John Masters, wildcatter)
WD40 (Water Displacement, 40 Tries to succeed)
"Ever notice that 'What the hell' is always the right decision?" (Anonymous screenwriter)

W.T.T.M.S.W./Whoever Tries The Most Stuff Wins.

WTTMSASTMSUW/Whoever Tries The Most Stuff And Screws The Most Stuff Up Wins.

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11. *Women may well flourish to the point of domination in new leadership roles in these emergent/ethereal settings that dominate the landscape—power will be exercised almost entirely indirectly, and will largely live in the network per se.* Women, among other things, are "soft power" experts, more comfortable and effective in settings where informal power is dominant. (Can men adapt? Not clear.) (On the other hand, for better and for worse, men typically have a greater proclivity for risk-taking—central to an entrepreneurially driven/dominated economy. A friend once said, mostly in jest, "Let the guys start the low-odds businesses—then let women run them. Hmmm …)

12. *One thing women are routinely better at than men is … listening. And in a networked world, de facto or de jure listening is paramount as never before.* We must listen intently within hyper-extended networks of peers if we intend to be inventive and accomplish complex tasks; participation and cooperation are the animating forces of a networked venture/economy. In the past, the best listeners have reaped great benefits from their skillset; but now listening well is a life-or-death proposition. (FYI: Cutting off and disempowering blowhards has never been so easy! There are no safety nets for jerks. In a networked word, your peers will vote you on or off the island—and revising a permutation will, as always, be devilishly difficult.)

13. *The "Brand You"/"Me, Inc." idea* (I more or less launched the concept/monikers in the mid-1990s) *is alive and well and getting healthier every day and is … not optional. Fact is, we mostly all will have to be entrepreneurial to survive, let alone thrive.* The good news is that we mostly were until 100 years ago, so gene alteration is not required—though it, too, may come in the next 25 years! The buck starts and stops with you, not a formally assigned boss—even if you are in a traditional enterprise; "traditional" enterprises may look familiar, but all vestiges of traditional job-security-courtesy-invisibility have evaporated. (Key/essential "Brand You" requirements: (1) Exceedingly good at *something*—a calling. (2) *Constan*t learning—adding as well as subtracting. (3) Perpetually expanding/deepening one's *network*—that is, "brand you" success is co-creation success, the antithesis of the egocentric go-it-aloneism that the term might at first glance imply. (4) *Dancing skills*—changing direction and improvising

will be commonplace. (5) "Entrepreneurial," in quotes because I mean taking the initiative as a matter of course, not necessarily starting your own business. "Change agent" used to be a special category—now, only change agents/initiators will survive.)

14. *Performance and accountability will be more important than ever, but will be measured by one's peers along dimensions such as reliability, trustworthiness, engagement, willingness to spend a majority of one's time (at any given time) helping others with no immediate expected return.*

15. AI is ripping through traditional jobs (and tasks) at an accelerating pace and the old saw, "We ain't seen nothin' yet," is a truism. (FYI: AI is transforming local/small businesses as well as the giants—think of local bookstores among many others.)

Virtually no job, circa 2000, will remain in a recognizable way within 15–25 years. It's as simple—and as traumatic—as that. This AI-driven transformation has long been coming—imagine 25-year time-lapse photography of, say, an auto plant—but it is accelerating and now scaling the highest peaks as it increasingly immolates "high end"/analytic/pattern recognition jobs.

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In the context of the eternally lingering anemic economic recovery, MIT professors Erik Brynjolfsson and Andrew McAfee look at the phenomenon this way in *Race Against the Machine: "The root of our problem is not that we're in a Great Recession or a Great Stagnation, but rather that we are in the early throes of a Great Restructuring. Our technologies are racing ahead, but many of our skills and organizations are lagging behind."*

On 22 May 2000, I authored a *Time* cover story titled "What Will We Do for Work?" I/It began, *"I believe that ninety percent of white-collar jobs in the U.S. will be either destroyed or altered beyond recognition in the next 10 to 15 years." The three causes I enumerated were "destructive" (game-changing) competition, technology/artificial intelligence, and outsourcing."* I was a bit ahead of schedule—now the process has clearly engulfed us.

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"The median worker is losing the race against the machine."—**Erik Brynjolfsson and Andrew McAfee,** *Race Against the Machine*

"A bureaucrat is an expensive microchip."—**Dan Sullivan, consultant and executive coach**

"Unless mankind redesigns itself by changing our DNA through altering our genetic makeup, computer-generated robots will take over the world."—**Stephen Hawking**

16. *There is a fundamental shift underway in the idea of what thinking and analysis is—it will affect everything.* Two books have upended my thinking: *Automate This: How Algorithms Came to Rule the World,* by Christopher Steiner*;* and *Big Data: A Revolution That Will Transform How We Live, Work, and Think*, by Viktor Mayer-Schonberger and Kenneth Cukier. I am not ready to drink the whole pitcher of Kool-Aid, but I am far more open-minded than I would have imagined. Consider the extracts immediately below …

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Automate This: How Algorithms Came to Rule the World, by Christopher Steiner

"Algorithms have already written symphonies as moving as those composed by <u>Beethoven</u>, picked through legalese with the deftness of a senior <u>law partner</u>, diagnosed patients with more accuracy than a <u>doctor</u>, written news articles with the smooth hand of a seasoned <u>reporter</u>, and driven vehicles on urban highways with far better control than a human <u>driver</u>."

" … The audience then voted on the identity of each composition.* [Music theory professor and contest organizer] Larson's pride took a ding when his piece was fingered as that belonging to the computer. When the crowd decided that [algorithm] Emmy's piece was the true product of the late musician, Larson winced." (*There were three composers: Bach, Larson, Emmy-the-algorithm.)

"When Emmy [algorithm] produced orchestral pieces so impressive that some music scholars failed to identify them as the work of a machine, [Prof. David] Cope instantly created legions of enemies. … At an academic conference in Germany, one of his peers walked up to him and whacked him on the nose. …"

" … Which haiku are human writing and which are from a group of bits? Sampling centuries of haiku, devising rules, spotting patterns, and inventing ways to inject originality, Annie [algorithm] took to the short Japanese sets of prose the same way all of [Prof David] Cope's. algorithms tackled classical music. 'In the end, it's just layers and layers of binary math, he says. … Cope says <u>Annie's penchant for tasteful originality</u>

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could push her past most human composers, who simply build on work of the past., which, in turn, was built on older works. …"

"When you ask [Cloudera founder Jeffrey] Hammerbacher what he sees as the most promising field that could be hacked by people like himself, he responds with two words: 'Medical diagnostics.' And clearly doctors should be watching their backs, but they should be extra vigilant knowing that the smartest guys of our generation—people like Hammerbacher---are gunning for them. The targets on their backs will only grow larger as their complication rates, their test results, and their practices are scrutinized by the unyielding eye of algorithms built by smart engineers. Doctors aren't going away, but those who want to ensure their employment in the future should find ways to be exceptional. Bots can handle the grunt work, the work that falls to our average practitioners."

Big Data: A Revolution That Will Transform How We Live, Work, and Think, by Viktor Mayer-Schonberger and Kenneth Cukier

"Correlations let us analyze a phenomenon not by shedding light on its inner workings, but by identifying a useful proxy for it."

"Predictions based on correlations lie at the heart of big data."

"The data deluge makes the scientific method obsolete,"—Editor-in-chief Chris Anderson, from the *Wired* cover story "The Petabyte Age" (Anderson also described the phenomenon as "the end of theory.")

"There is a philosophical debate going back centuries over whether causality even exists."

"As humans, we have been conditioned to look for causes, even though searching for causality is often difficult and may lead us down the wrong paths. In a big data world, by contrast, we won't

have to be fixated on causality; instead, we can discover patterns and correlations in the data that offer us novel and invaluable insights. The correlation may not tell us precisely <u>why</u> something is happening, but they alert us <u>that</u> it is happening. And in many situations, this is good enough. If millions of electronic medical records reveal that cancer sufferers who take a certain combination of aspirin and orange juice see their disease go into remission, then the exact cause for the remission in health may be less important than the fact that they lived.”

“Correlations let us analyze a phenomenon not by shedding light on its inner workings, but by identifying a useful proxy for it.”

“Predictions based on correlations lie at the heart of big data.”

“There is a philosophical debate going back centuries over whether causality even exists.”

“Unfortunately, Kahneman argues [*Thinking, Fast and Slow*], very often our brain is too lazy to think slowly and methodically. Instead, we let the fast way of thinking take over. As a consequence, we often ‘see’ imaginary causalities, and thus fundamentally misunderstand the world.”

Walmart: “[Using big data], the company noticed that prior to a hurricane, not only did sales of flashlights increase, but so did sales of Pop-Tarts. … Walmart stocked boxes of Pop-Tarts at the front of the store [and dramatically boosted sales].”

“Aviva, a large insurance firm, has studied the idea of using credit reports and consumer-marketing data as proxies for the analysis of blood and urine samples for certain applicants. The intent is to identify those who may be at higher risk of illnesses like high blood pressure, diabetes, or depression. The method uses lifestyle data that includes hundreds of variables such as hobbies, the websites people visit, and the amount of television they watch, as well as estimates of their income. Aviva’s predictive model, developed by Deloitte Consulting, was considered successful at identifying health risks.”

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17. *3-D printing is most likely a gamechanger.* "Making stuff" is undergoing a change that will have staggering ripple effects on individuals—and nations. And the "stuff" that can be made will clearly include, yes, body parts. To be sure, there is still a long way to go but, one more time, it's quite likely that a tipping point has been reached. (FYI: As I write I'm in the process of acquiring a low-end 3-D printer/PF/Personal Fab.)

18. *In general, wholesale/continuous/intense re-education (forgetting as well as learning—the former is the more difficult) is a lifelong pursuit—and not optional.* Obviously, instilling, or at least not killing, curiosity from about age ZERO is part and parcel of the New Age and goes against today's grain. E.g., Parent Goal #1: Don't kill the curiosity with which the child is born!

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"Every child is born an artist. The trick is to remain an artist."—Picasso

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19. It is commonplace when discussing education (frequently described as National Priority #1) to obsess on math proficiency and, more broadly, STEM (Science Technology Engineering Math). STEM is no doubt significant to a landscape being transformed by technology, though I favor the formulation labeled STEAM, or steAm. (President John Maeda of RISD coined the new flavor.) The "A" is for Art, or the arts. *"The arts" are to some extent "what's left" as AI/robotics vacuum up traditional high-end occupations. Consider the world's most valuable company—Apple. While its "T" (technology) is exceptional, it is the "A" that has made all the difference—or, rather, the A ingeniously blended with S, T, E, and M.* **(You will find another summary document—on education—attached as Appendix THREE; it's titled "Manifesto/ Polemic: Best Teacher Corps Wins!")**

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"Microsoft never had the humanities or liberal arts in its DNA."—Steve Jobs

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20. In general, in the age of stupendous technology change, the "soft" attributes will be more important than ever. This is true of invention/innovation (see Apple reference above) and abetted by the networked nature of development and execution; for the foreseeable future, development and execution are "soft" arranging and managing tasks.

21. Education redux. The (very) good news: *Education is busily re-inventing itself and leaving the ed establishment in the dust!* You might say that all schooling will become de facto home schooling—and will effectively start at birth. Educational resources are increasingly available on the desktop (or whatever we'll call it); and, ho-hum, we ain't seen nothin' yet. **MOOCs**/Massive Online Open Courses of every flavor are rising—networks will create their own spontaneous and encompassing educational "system" as a vehicle like TEDx is illustrating. Traditional education models will more or less disappear—some forecast only a dozen surviving universities as we know them today with a couple of decades. (This seems, and doubtless is, extreme—but the fact that it can be imagined and seriously discussed is jaw-dropping.) And, I repeat, this encompasses the first 10 years of education, not just tertiary/tertiary+ ed. Young students can/are re-inventing education and the human interaction/convergence processes, unbeknownst even to themselves, at the speed of light; gaming, for (one big) example is not a sideshow—it *is* the show. Emphasis on ed will shift from ages 5–18 (or 22) to ages 2–82. Redux redux: *The idea of and shape of education per se are erasing all that's come before—the shape of the delivery vehicle and the idea of education-is-forever-for-all.*

22. **GRIN**/*Genetics-Robotics-Informatics-Nanotech.* Overwhelming transformation is hardly just AI/Robotics or the likes of 3-D printing/personal fabs, which have de facto underpinned much of the commentary above. Change, entrepreneurial activities and early adoption in the "G"/genetics and the "N"/nanotech arenas are accelerating. *In fact, the 25 year horizon may border on the unrecognizable.* The good news—above—is that we will be rewiring the entire economy/nature of existence into a flexible format capable of adjusting-adapting 100X more rapidly than is the case today. And in 25 years the likelihood is non-low that genetic adaptations to deal with genetic adaptations/ nanotech may well be standard fare. A great deal of the "G-stuff" is proven—the issue is the pattern of implementation. Among (many) other things, as "G" options accelerate/ multiply, religious conservatism versus scientific aggressiveness with war and peace mixed in portend high odds of a global donnybrook.

23. *Government has a large role to play, like it or not. E.g., government-funded BASIC-research and development is a major-league necessity—which is growing rather than diminishing.* Government's historical role in research has routinely been underestimated, but will be especially needed if the cataclysmic changes likely in universities blow below-the-waterline holes in those universities' R&D funding models. Hyper-capitalism in general leads to paper-thin profits which lead to disinvestment in BASIC R & D—e.g., the likes of Bell Labs; this is already happening and is unmistakably accelerating. For another BIG thing, government also has to stay involved in social safety-net issues. As long-term employment evaporates, the services historically provided/funded by big companies will more or less disappear—see the current situation regarding pensions. Hence, government support will remain and become more important as the court of last resort. Add in, then, infrastructure, which is as important as ever— from the Internet backbone to highways and bridges. (And, of course and alas, defense— the world is and will likely stay far short of placid.) *Acknowledging the limits, at times severe, of markets is imperative!* (Anti-government ideologues must get this through their heads.)

24. Governance. To a non-trivial extent, we have been globalizing/globalized for 500 years. But the emergent interconnectedness is of a different character. *It is hard to imagine that fundamental systems of human governance will remain unchanged.* The growth of interdependence to date, alas, has hardly eliminated wars—though overall human violence does continue to measurably decrease. Some have said that the global giant corporations have become the true, but shadow, system of governance—and there is significant truth to that. Yet I have argued above that a stable portfolio (such as the fictional but real "Global 1000") of giants is unlikely to dominate in the mid- to long-term. What tomorrow's UN will look like is unclear to me; the nation state is not likely to disappear any time soon, and the role of a stable technological backbone, among other things, would seem to necessitate its survival. But will categories such as "democracies" mean what they do today? Perhaps. Perhaps not.

25. Downside. *I have, during my months of forced re-education, personally moved from a position of deep pessimism to one of guarded optimism.* We have survived discontinuous change in the past. The determining factor is always the same: Timeframe!! There is no doubt that the pace of change is accelerating—it has ever been thus. *But arguably (inarguably?) there is a discontinuity in the rate of acceleration per se.* AI for example, like many of its predecessor "game-changer" technologies, has been "on the verge" for 40 years. But now the cataclysmic moment may have arrived. (Add the "G" and the "N" into the mix—though they are perhaps a bit farther from the tipping point—and you have a case for true de-stabilization.) Will "everything be different" in 10 or 25 years? Perhaps. Will we adapt; history says yes, but common sense says there are no sure bets. Stay tuned!

*The power to invent (*and* execute) is switching/flipping rapidly/inexorably to the network. "Me" is transitioning to "We"—as consumers and producers. Nouns are giving way to gerunds—it's an "ing"/shape-shifting world!

*The Internet *must* stay open and significantly unregulated to enable, among other things, the entrepreneurial spurt that will significantly underpin world economic growth.

*Entrepreneurial behavior and upstart entrepreneurial enterprises have underpinned every monster shift in the past, such as farm to factory. This time will likely be no different.

*An obsession with a "Fortune 500" of more or less stable giants dictating "the way we do things" will likely become an artifact of the past. (Though big companies/"utilities" will not disappear.)

*There is simply no limit to invention or entrepreneurial opportunities! (Please read twice.)

*The new star bosses will be "wizards"/"maestros."

*Sources of sustained profitability will often be elusive in a "soft-services world."

*Control and accountability will be a delicate dance. Now you see it, now you don't ...

*Trial and error, *many many many* trials and *many many many* errors *very very very* rapidly will be the rule; tolerance for and delight in rapid learning—and unlearning—will be a/the most valued skill.

*"Gamers" instinctively "get" the idea of lots of trials, lots of errors, as fast as possible; for this reason among many, "the revolution" is/will be to a very significant degree led by youth.

*Women may well flourish to the point of domination in new leadership roles in these emergent/ethereal settings that dominate the landscape—power will be exercised almost entirely indirectly, which is business-as-usual for most women.

*The "Brand You"/"Me, Inc." idea is alive and well and getting healthier every day and is … not optional. Fact is, we mostly all will have to behave/be entrepreneurial tap-dancers to survive, let alone thrive. (Again, the under-35 set already seem mostly to get this; besides, this was the norm until 90 years ago.)

*Individual performance and accountability will be more important than ever, but will be measured by one's peers along dimensions such as reliability, trustworthiness, engagement, flexibility, willingness to spend a majority of one's time helping others with no immediate expected return.

*AI is ripping through traditional jobs at an accelerating pace. Virtually no job, circa 2000, no matter how "high end," will remain in a recognizable way within 15-25 years. It's as simple—and as traumatic—as that.

*There is a fundamental shift underway in the idea of what thinking and analysis are—it will affect everything.

*3-D printing is likely a game-changer.

*Wholesale/continuous/intense re-education (forgetting as well as learning) is a lifelong pursuit/imperative; parent Goal #1: Don't kill the curiosity with which the child is born!

* STEM/Science-Technology-Engineering-Math excellence is essential in a world buffeted by technology—but it has severe limitations. I favor the more robust formulation labeled STEAM/steAm. The "A" is for Art, or the arts. "The arts" are to some extent "what's left" in terms of value creation as AI/robotics vacuum up traditional high-end occupations—think Apple.

*The surprisingly good news: Education is busily re-inventing itself and leaving the ed establishment in the dust! The idea of and shape of education per se are erasing all that's come before.

*GRIN/Genetics-Robotics-Informatics-Nanotech: Overwhelming transformation is hardly just the provenance of AI/Robotics. Change, entrepreneurial activities and early adoption in the "G"/genetics and the "N"/nanotech arenas are accelerating. In fact, our 25 year horizon may border on the unrecognizable.

*Government has a large role to play. E.g., government-funded BASIC research and development is a major-league necessity—which is growing rather than diminishing. Acknowledging the limits, at times severe, of markets is imperative!

*Governance: It is hard to imagine that fundamental systems of human arrangement/governance will remain unchanged.

*Downside? I have, during my months of forced re-education, moved from a position of deep pessimism to one of guarded optimism. Will "everything be different" in 10–25 years? Perhaps. Will we adapt individually and organizationally; history says yes, but common sense says there are no sure bets, and frightful issues (from genetics to war-and-peace) can readily be imagined. Stay tuned!

"Reframing Capitalism": A 15-Point Human Capital Development Manifesto/HCDM at the Enterprise & National Government Level

Tom Peters
14 June 2012
World Strategy Forum
The New Rules: Reframing Capitalism
Seoul, Korea

"Business has to give people enriching, rewarding lives … or it's simply not worth doing." **—Richard Branson**

"Reframing Capitalism": A 15-Point Human Capital Development Manifesto/HCDM at the Enterprise and National Government Level

"In some sense you can argue that the science fiction scenario is already starting to happen. The computers are in control. We just live in their world."—Danny Hillis

"Human creativity is the ultimate economic resource."—Richard Florida

"Every child is born an artist. The trick is to remain an artist."—Picasso

"Knowledge becomes obsolete incredibly fast. The continuing professional education of adults is the No.1 industry in the next 30 years."—Peter Drucker

"If you want staff to give great service, give great service to staff."—Ari Weinzweig

In mid-June 2012 I spoke at a major event in Seoul, Korea, World Strategy Forum/ The New Rules: Reframing Capitalism. Predictably the discussion focused on global financial infrastructure. To ignore that would have been insanity. On the other hand, I believe that employment/unemployment is even more affected by the changing nature of work—and the wildly accelerating effectiveness of technology, such as artificial intelligence, in encompassing activities that employ tens of millions of people, especially in the OECD nations. I believe this is, in the mid- to long-term, our #1 problem—and #1 opportunity. Confronting the nature and extent of future employment is required for reasons of economic survival and growth—and for reasons of social and political stability. Having created here in a single paragraph the oceanic basis for what follows, I must admit that it was a mundane question (Question #1) in an interview before my speech that triggered this "manifesto." Namely: "Dr. Peters, how would you define the perhaps changing nature of corporate social responsibility in these uncertain times?" Herewith, in effect, my response—which, quite honestly, came as a surprise to me:

1. **"Corporate social responsibility" starts at home—i.e., inside the enterprise!**
MAXIMIZING GDD/Gross Domestic Development of the workforce is the primary source of mid-term and beyond growth and profitability—and maximizes national productivity and wealth. (The profitability axiom: If you want to serve the customer with uniform Excellence, then you must FIRST effectively and faithfully serve those who serve the customer—i.e. our employees, via maximizing tools and professional development.)

TIB*#1: *Your principal moral obligation as a leader is to develop the skillset, "soft" and "hard," of every one of the people in your charge (temporary as well as semi-permanent) to the maximum extent of your/your organization's resources. The good news: This is also the #1 mid- to long-term … profit maximization strategy!*

*TIB/This I Believe (idea of "TIBs" courtesy Bill Caudill)

Oath of Office: Managers/Servant Leaders

Our goal is to serve our customers brilliantly and profitably over the long haul.

Serving our customers brilliantly and profitably over the long haul is a product of brilliantly serving, over the long haul, the people who serve the customer.

Hence, our job as leaders—the alpha and the omega and everything in between—is abetting the sustained growth and success and engagement and enthusiasm and commitment to Excellence of those, one at a time, who directly or indirectly serve the ultimate customer.

We—leaders of every stripe—are in the "Human Growth and Development and Success and Aspiration to Excellence business." "We" (leaders) only grow when "they" (each and every one of our colleagues) are growing.

"We" (leaders) only succeed when "they" (each and every one of our colleagues) are succeeding.

"We" (leaders) only energetically march toward Excellence when "they" (each and every one of our colleagues) are energetically marching toward Excellence.

Period.

2. Regardless of the transient external situation, development of "human capital" is *always* the #1 priority. This is true in general, in particular in difficult times which demand resilience—and uniquely true in this age in which IMAGINATIVE brainwork is *de facto* the only plausible survival strategy for higher wage nations. (Generic "brainwork," traditional and dominant "white-collar activities, is increasingly being performed by exponentially enhanced artificial intelligence. Please see Appendix.)

3. Three-star generals and admirals (and symphony conductors and sports coaches and police chiefs and fire chiefs) OBSESS about training. Why is it an almost dead certainty that in a random 30-minute interview you are unlikely to hear a CEO touch upon this topic? (I would hazard a guess that most CEOs see IT investments as a "strategic necessity," but see training expenses as "a necessary evil.")

4. Proposition/axiom: The CTO/Chief TRAINING Officer is arguably the #1 staff job in the enterprise, at least on a par with, say, the CFO or CIO or head of R&D. (Again, external circumstances—see immediately above—are forcing our hand.)

5. The training budget takes precedence over the capital budget. PERIOD. It's easier and more satisfying to get your picture taken next to a new machine. But how do you get a photo of a new and much improved attitude in a key distribution center? The catch: The odds are 25:1 that the new attitude will add more to the bottom line than will the glorious state-of-the-art machine.

<div align="center">**********</div>

In the 3rd quarter of 2011 manufacturing output went up 4.7 percent—one heck of an accomplishment. But there was a catch, and a big one. Gross hours worked in manufacturing went down 0.6 percent. Such ratios are becoming commonplace—and in services as much or more than in manufacturing. As we automate damn near everything and as that trend accelerates (been in an auto plant lately—where are the people?), output is dramatically outstripping labor usage. Great for productivity, borderline terrifying for workers. This "manifesto" is written with such numbers in mind—not only does that not mean that it's neo-Luddite, but, in fact, the opposite. Timid strategies will not address the employment issue. Education and job content must be turned upside down—in short order.

<div align="center">**********</div>

Gambling Man

Bet #1: >> **5 of 10 CEOs see training as expense rather than investment.**

Bet #2: >> **5 of 10 CEOs see training as defense rather than offense.**

Bet #3: >> **5 of 10 CEOs see training as "necessary evil" rather than "strategic opportunity."**

Bet #4: >> **8 of 10 CEOs, in 45-min "tour d'horizon" of their biz, would <u>NOT</u> mention training.**

6. Human capital development should routinely sit atop any agenda or document associated with enterprise strategy. Most any initiative you undertake should formally address implications for and contributions to human capital asset development.

7. Every individual on the payroll should have a benchmarked professional growth strategy. Every leader at every level should be evaluated in no small measure on the collective effectiveness of individual growth strategies—that is, each individual's absolute growth is of direct relevance to every leader's assessed performance.

8. Given that we ceaselessly lament the "leadership deficit," it is imperative, and just plain vanilla common sense, that we maximize the rate of development of women leaders at every level—little if anything has a higher priority. (It is an outrage that this has not been the case until now—and is still not the case in far too many institutions.) (And, while there are no guarantees, women are more likely dispositionally to take a shine to the imperative of maximizing human asset development.)

9. Maximum utilization of and continued development of "older workers" (to age 70—or even beyond?) is a source of immense organizational and national growth and wealth. The rapidly aging population, with oldies far more healthy and vital than ever, ought to be an opportunity rather than a pain-in-the-butt to deal with.

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I was intimidated by the conference title "Reframing capitalism"—and the fact that a passel of Nobel laureates in economics would be addressing the issue. Then it occurred to me that the mid- to long-term "reframing" was more about recasting the nature of work/jobs in, for example, the face of 2020's artificial intelligence than about whether the Spanish bailout is $100 billion or $400 billion—as nontrivial as the latter is. I.e., what the hell will the world's four billion or so workers be doing, say, 10 years from now? I'm not sure that sophisticated econometric analyses will be all that helpful in determining an answer.

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10. **The practical key to all human asset development activities is the first-line manager.** ("Sergeants run the Army" is an accurate, commonplace observation—supported by immense development resources.) Hence development of the full cadre of first-line managers is an urgent—and invariably underplayed—strategic imperative. Arguably, the collective quality and development trajectory of first-line leaders is an organization's #1 human asset development priority. (Consistent with all the above, the first-line leader's skill at "people development" is her or his top priority—for which she or he must be rigorously and continually trained.)

"Human creativity is the ultimate economic resource."

—Richard Florida

"Every child is born an artist. The trick is to remain an artist."

—Picasso

11. The national education infrastructure—from kindergarten through continuing adult education—may well be National Priority #1. Moreover, the educational infrastructure must be altered radically to underpin support for the creative jobs that will be more or less the sole basis of future employment and national growth and wealth creation.

12. Associated with the accelerated priority of the national education infrastructure is a dramatically enhanced and appreciated and compensated role for our teachers—this status enhancement must necessarily be accompanied by rigorous accountability. There is no doubt that "teaching" (instilling) insatiable curiosity, say, which is the #1 attribute of a creative person, is no easy task; however, there is no way that it can be ducked if one looks at future definitions of employability.

13. The majority of us work in small enterprises; hence, national growth objectives based upon human capital development MUST necessarily extend "downward" to even 1-person enterprises. Collective productivity improvement through human capital development among small businesses has an unimaginably large—and undervalued—payoff. While many small businesses appreciate the notion, they are unprepared to take the steps necessary to engage their, say, dozen employees in seeking quantum leaps in creative work content and productivity improvements.

14. Needless to say, the activities imagined here will only be possible if abetted by a peerless National Information and Communication Infrastructure. Indeed, the work referred to here is being done—and the need is appreciated and reasonably well funded. The effort must not falter; the new information-based tools and accompanying infrastructure are the coin of the realm.

15. Associated with the above is a RADICAL reorientation of leadership education and development—throughout the enterprise/education/continuing education establishment. (E.g., among other things, the MBA and executive education will require open-heart surgery—aimed at shifting focus from finance and marketing to human resource development.) To deal with the most likely future employment scenarios, leaders will need to be masters of the liberal arts—said arts are, again, the determinant of responding to the emerging world.

The agenda implied by the above "manifesto" is bold—and its moorings are a long way from where we are today. But this or something rather like it falls into a category labeled—not optional.

"Unless mankind redesigns itself by changing our DNA through altering our genetic makeup, computer-generated robots will take over the world."—**Stephen Hawking**

"There's no use trying,' said Alice. 'One cannot believe impossible things.' 'I daresay you haven't had much practice,' said the Queen. 'When I was your age, I always did it for half an hour a day. Why, sometimes I've believed as many as six impossible things before breakfast.'"—**Lewis Carroll**

Appendix ONE-A: "Re-inventing Work," 1999-2012

In 1999 I published a three-book series called "Re-inventing Work." Namely:

The Brand You50: Fifty Ways to Transform Yourself from an "Employee" into a Brand That Shouts Distinction, Commitment, and Passion!

The Project50: Fifty Ways to Transform Every "Task" into a Project That Matters!

The Professional Service50: Fifty Ways to Transform Your "Department" into a Professional Service Firm Whose Trademarks Are Passion and Innovation!

A year later, I authored the 22 May 2000 *Time* cover story "What Will We Do for Work?" It began:

"I believe that ninety percent of white-collar jobs in the U.S. will be either destroyed or altered beyond recognition in the next 10 to 15 years." The three causes I enumerated were "destructive" (game-changing) competition, technology/artificial intelligence, and outsourcing.

The point is not to chortle that I got it right, but to suggest that this change has been in the making for a while. (I guess it was underway when IBM installed back-office software in my dad's finance office at the Baltimore Gas & Electric Company in the early 1960s—he saw the subsequent jobs alteration as "catastrophic.") However, in the last few years the rate of change has been such that a tipping point has clearly been reached. The 1999 book series was meant to say, "Change big time" or be sidelined or, frankly, obliterated professionally—and the change the three books encompassed was in the direction of producing creative work that would transform the individual's professional life and the path to value-added-via-creative-services that appeared to be the only path available to the surviving enterprise.

The nature of work (remember the series title was "Re-inventing Work") will be altered beyond recognition; and the nature of the "company" under whose aegis the new work will be coordinated and delivered will be altered beyond recognition.

This revolution-in-progress, the vague outlines of which could be imagined in 1999, is now unmistakably upon us—and the time-left-to-execute an about-face is limited, very limited. The wise individual ("brand you") will be hard at it with or without enterprise or societal support—but this paper argues that the enterprise itself should embrace the change (no option) and do so from the perspective of full-bore commitment to "human asset" "upgrading/transformation."

"I believe that ninety percent of white-collar jobs in the U.S. will be either destroyed or altered beyond recognition in the next 10 to 15 years." **(Cover story/*Time*/22 May 2000/Tom Peters)**

Appendix TWO
Reading List 2013

I am trying my damndest to get a tenuous grip on the extraordinary-revolutionary-earth-flipping change that surrounds us and which is accelerating madly. Below is an idiosyncratic reading list I've pulled together. In addition to non-fiction, there are a handful of well-researched ultra-sane sci-fi novels by the likes of David Wilson and Neal Stephenson. Also you'll find a couple of my favorites on the financial crisis. A few others touch on decision making and the typically faulty interpretation of cause and effect—and the power of being wrong.

Herewith, 49 books with my "18 Musts" in boldface/red:

***The Singularity Is Near: When Humans Transcend Biology*—Ray Kurzweil**
Redesigning Humans: Choosing Our Genes, Changing Our Future—Gregory Stock
Wetware: A Computer in Every Living Cell—Dennis Bray
Power, Sex, Suicide: Mitochondria and the Meaning of Life—Nick Lane
Wired for War: The Robotics Revolution and Conflict in the Twenty-first Century—P.W. Singer
***America the Vulnerable: Inside the New Threat Matrix of Digital Espionage, Crime and Warfare*—Joel Brenner**
Cyber War: The Next Threat to National Security and What to Do About It—Richard Clarke & Robert Knake
Worm: The First Digital World War—Mark Bowden
***Fab: The Coming Revolution on Your Desktop—From Personal Computers to Personal Fabrication*—Neil Gershenfeld**
Makers: The New Industrial Revolution—Chris Anderson
The New Industrial Revolution: Consumers, Globalization and the End of Mass Production—Peter Marsh
The Department of Mad Scientists: How DARPA Is Remaking Our World, from the Internet to Artificial Limbs
—Michael Belfiore
Makers—Cory Doctorow
***Amped*—Daniel Wilson**
Robopocalypse—Daniel Wilson
Freedom—Daniel Suarez
REAMDE—Neal Stephenson
***Race Against the Machine: How the Digital Revolution Is Accelerating Innovation, Driving Productivity and Irreversibly Transforming Employment and the Economy*—Erik Brynjolfsson & Andrew McAfee**
***Automate This: How Algorithms Came to Rule the World*—Christopher Steiner**
***Big Data: A Revolution That Will Transform How We Live, Work, and Think*—Viktor Mayer-Schonberger & Kenneth Cukier**
The Coming Jobs War—Jim Clifton
Future Perfect: The Case for Progress in a Networked Age—Steven Johnson
***Open Services Innovation: Rethinking Your Business to Grow and Compete in a New Era*—Henry Chesbrough**
***The Power of Co-Creation: Build It With Them to Boost Growth, Productivity and Profits*—Venkat Ramaswamy & Francis Gouillart**
Creating Innovators: The Making of Young People Who Will Change the World—Tony Wagner
***Everything Bad Is Good For You: How Today's Popular Culture Is Actually Making Us Smarter*—Steven Johnson**
Women and Gaming: The Sims and 21st Century Learning—James Gee & Elisabeth Hayes
***Reality Is Broken: Why Games Make Us Better and How They Can Change the World*—Jane McGonigal**
Extra Lives: Why Video Games Matter—Tom Bissell
The Social Conquest of Earth—**E.O. Wilson**
The Better Angels of Our Nature: Why Violence Has Declined—Steven Pinker
***The Signal and the Noise: Why So Many Predictions Fail—But Some Don't*—Nate Silver**
***Thinking, Fast and Slow*—Daniel Kahneman**
***Ubiquity: The Science of History … Or Why the World Is Simpler Than We Think*—Mark Buchanan**
The Ambiguities of Experience—James March
***The Shareholder Value Myth: How Putting Shareholders First Harms Investors, Corporations, and the Public*—Lynn Stout**
Age of Greed: The Triumph of Finance and the Decline of America. 1970 to the Present—Jeff Madrick
Extreme Money: Masters of the Universe and the Cult of Risk—Satyajit Das
***Enough. True Measures of Money, Business and Life*—John Bogle**
***Not For Profit: Why Democracy Needs the Humanities*—Martha Nussbaum**
Practice Perfect: 42 Rules for Getting Better at Getting Better—Doug Lemov, Erica Woolway & Katie Yezzi
The Little Book of Talent: 52 Tips for Improving Your Skills—Daniel Coyle
***Better By Mistake: The Unexpected Benefits of Being Wrong*—Alina Tugend**
Being Wrong: Adventures in the Margin of Error—Kathryn Schulz
Addiction By Design: Machine Gambling in Las Vegas—Natasha Schull

Manifesto/ Polemic: Best Teacher Corps Wins!

Manifesto/Polemic: Best Teacher Corps Wins!

"The best educated nations win."
Or: "The best educated and most entrepreneurial nations win."

There is more to life than education.
There is more to life than entrepreneurship.

Yet these two variables are increasingly important in the years ahead—and those years are rushing toward us at an unprecedented pace. In technology change, yesterday's decade is today's two years—or less.

If these two variables are important, then it more or less follows that our teaching corps—especially for the first 8 grades—are the most important members of our society. (Singapore more or less—mainly more—believes this and acts upon it.)

Implication*: The very best and the very brightest and the most energetic and enthusiastic and entrepreneurial and tech-savvy of our university graduates must— must, not should—be lured into teaching.* **(They need not stay for life—one would be happy with 5 years, ecstatic with 10.)**

In the USA and other nations (many if not most if not almost all), the variables set out above and associated with excellence in teaching required to meet the challenges of 2020, let alone 2040, alas, do not describe our fresh-caught teachers. One could even argue, stopping short of cynicism, that those variables are often the antithesis of the ones associated with those attracted to teaching today. This is simply unacceptable in the face of the most likely scenarios for economic excellence—or, for that matter, survival.

(FYI: To reiterate one of the initial points—we must attract instinctively entrepreneurial candidates—there are more of such candidates than one might imagine. Attracting entrepreneurial candidates, of course, requires a system that is open to change and which celebrates rather than condemns rebels. Concerning the proclivity or fitness for entrepreneurial adventures, Nobel Prize winner Muhammad Yunus put it this way: "All human beings are entrepreneurs. When we were in the caves we were all self-employed ... finding our food, feeding ourselves. That's where human history began ... As civilization came we suppressed it. We became labor because they stamped us, 'You are labor.' We forgot that we are entrepreneurs." Bottom line: Super-genes are not required to foretell an entrepreneurial penchant— among other things, the millions upon millions converting to entrepreneurial ventures out of choice or perceived necessity courtesy the Web are more or less proof of Yunus's assertion.)

The very best and the very brightest and the most energetic and enthusiastic and entrepreneurial and tech-savvy of our university graduates must—must, not should—be lured into teaching.

(FYI: Once in the classroom, can one, no matter how disposed thereto, teach entrepreneurial behavior? Perhaps not "teach," but the teacher can create a supportive context. Consider these on-the-money words from movie director Robert Altman upon receiving an Oscar for lifetime achievement: "The role of the Director is to create a space where the actors and actresses can become more than they've ever been before, more than they've dreamed of being." The classroom fit is obviously 1-to-1. In the same vein, can you teach "curiosity"/"creativity"? Again, perhaps not. In fact, the trick is not "teaching" it, but getting out of the way. Every healthy 2-year-old is a genetically enabled curious-creative entrepreneur. Picasso got it right: "Every child is born an artist. The trick is to remain an artist." Likewise, former Notre Dame football coach Lou Holtz on "motivating" players: "I don't 'motivate' players. They arrive motivated. I try not to de-motivate them." Again the translation to the classroom is 1-to-1. But a teacher who gets off on sometimes annoying curiosity and entrepreneurial disruptiveness is mandatory— and mostly AWOL among those we attract to teaching, circa 2013.)

Finding and educating these new-criteria teachers requires a revolution in both content and the incentive structure needed to attract the best of the best—and to induce them to experiment boldly once aboard the education train.

(FYI: Re content, there is a school of thought prevalent in the USA which demands an immediate curricular shift toward "STEM"—science, technology, engineering and mathematics. To be sure, no harm done, lots to applaud. However, Rhode Island School of Design President John Maeda recommends instead "STE<u>A</u>M"— science, technology, engineering, *the arts* and mathematics. His argument is based upon an assessment of future bases of competitive advantage as computers make vast inroads to existing jobs; the concept or something akin thereto arguably—or, in my opinion, inarguably—makes a great deal of sense.)

This necessary revolution in teacher inducement and development, no matter the urgency assigned, will not happen overnight—or in the next five years, even if one and all, including teachers' unions, agreed on the premises above.

In the meantime, we cannot wait ...

Our universities today do turn out magnificent "products" who can meet the specs above and de facto launch the education revolution—today. We must immediately move to unmistakably and with governmental approval (and, one dearly hopes, reduced teachers union recalcitrance) and towering private sector contributions bag these candidates as they march out of the graduation auditorium with their spanking new degrees.

(FYI: In my opinion, the impact of the new technologies is such that we need a very young teacher corps—one that has the demographics and restless mindset of Facebook or Twitter or Google new-hires. Assertion: With rare exceptions, older

"Every child is born an artist. The trick is to remain an artist."—**Picasso**

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In my opinion, the impact of the new technologies is such that we need a very young teacher corps—one that has the demographics and restless mindset of Facebook or Twitter or Google new-hires.

teachers—35+??—will have the devil's own time identifying with the experiences of the students who walk into their classrooms, circa 2020—and, for that matter, circa 2013. And the devil's own time embracing new "upside down" approaches to teaching. For example, as many forward thinkers have said, the teacher must in effect partner with rather than dictate to students who in many ways are more technically qualified and disposed than their teachers; and partner with students in ventures that de facto foreshadow an appetite for entrepreneurship. Likewise, and curiously, in the best, though not all, cases "gamification" can be an extraordinarily useful and positive learning and curiosity-inducing tool; for example, the overarching goal of most good cooperative games—and virtually all the successful games are cooperative ventures—is not ultimate victory, but constant improvement; hence, an emphasis on trying and failing and trying yet again is the norm, as it rarely is in a standard classroom which eschews failure and thence induces extreme cautiousness; Steven Johnson's book *Everything Bad Is Good For You* provides a provocative take on this.)

Role models are needed (and, praise be, available): Teach For America is an example of an approach that appears to provide a semblance of a road map for others. It is hardly "the answer" to this "save the nation" need. But it does provide an exceptionally worthwhile and tested case—both its successes and failures, the latter of which illustrate the pushback that this entrepreneurial approach induces in, at least, the USA. Teach For America, however, is almost proof positive that, under the right circumstances, the very best and the very brightest from leading institutions can be attracted in surprising numbers to at least a stint as educators; this proven attraction predates the 2007++ crash, so it cannot be written off as merely a response to a lousy job market for graduates. (Teach For America is but one example. In particular, courtesy charter schools among other efforts, a plethora of de facto experiments are in train in the USA; some are of course fiascos, but many of the successes are truly imaginative to the point of "eye-popping.")

Also in the role model set could be the likes of the Robertson scholars—a "full ride" university scholarship program established by philanthropist Julian Roberts and overseen by an evaluation process so rigorous that it merits comparison to the Rhodes program, though at the university entrance juncture. In one way or another, identifying our future "save the nation" teachers is a bit like developing sports and musical champions; while one can go far too far, ID-ing talent early is an imperative strategy. Which is to say that the attraction to, in effect, nation-building-through-a-matchless-teaching-corps should mark university entrance as well as post-university work. (FYI: this latter assertion about funneling top university candidates into the system in no way suggests funneling them toward schools of education—alas, the latter are often laggards rather than leaders in developing the needed skills and proclivity for risk-taking and experimentation laid out at the beginning of this paper.)

The ideas presented here—hastily and in the roughest form—were developed subsequent to a discussion during my New Zealand sojourn on building a cadre of teachers that matches the likely needs of these turbulent times. (My only previous stick-your-neck-out effort of consequence concerning education is recorded as Chapter 22 in my book *Re-Imagine: Business Excellence in a Disruptive Age.*) I had no intention of writing anything like this—but as I wrote I found myself almost pounding the keyboard into mush. Like it or not, complex problems call for complex solutions. Yet I am coming to see the "simple" solution of BBFs/Best & Brightest & Feistiests, as I am now calling them, becoming the base for a transformed teacher corps as a national necessity on a par with national security; in fact, obviously, it is an issue of national security.

24 March 2013
(Revised 17 June 2013)
Golden Bay
New Zealand
Tom Peters

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