

Is Montessori The Origin Of Google & Amazon?

By Steve Denning - Forbes Magazine. August 2nd, 2011

In your extended absence, you permit me use of earth, anticipating some return on investment. I must report failure in my assignment, principally regarding the tomato plants - Louise Glück, Vespers

Unfortunately our failure these days goes way beyond the tomato plants and extends to the entire education system, as noted in my two last articles, 'Wakeup Call For The Gates Foundation' and 'What Does It Mean To Be Educated?' The articles sparked a lively conversation, parts of which deserve highlighting.

Let's learn from Montessori

The idea that we don't have to reinvent the wheel was striking. The example of thousands of Montessori schools is before us. Montessori puts the student at the center. It is proven to work. As noted by Sivadlk it's working on every inhabited continent, at every economic level. The approach is over 100 years old but the ideas are timeless. The world is finally catching up with Maria Montessori's insights.

Is Montessori the key to Apple & Amazon?

There was considerable interest in the Wall Street Journal article by Peter Sims, author of '*Little Bets: How Breakthrough Ideas Emerge from Small Discoveries* (Free Press, 2011)' about the possibility of a "Montessori Mafia", given that the Montessori approach has spawned a creative elite, including Google's founders Larry Page and Sergei Brin, Amazon's Jeff Bezos, videogame pioneer Will Wright, Wikipedia founder Jimmy Wales, cook Julia Child and rapper Sean "P.Diddy" Combs.

The Montessori learning method establishes a collaborative environment without grades or tests, multi-aged classrooms, as well as self-directed learning and discovery for long blocks of time.

Montessori methods go against the grain of traditional educational methods but they have uncanny parallels in the success of their alumni:

- Google [[GOOG] wasn't launched by Larry Page and Sergei Brin as a brilliant vision, but rather as a project to improve library searches, followed by a series of small discoveries that unlocked a revolutionary business model.
- Amazon's [AMZN] strategy by Jeff Bezos involves developing ideas in new markets similar to "planting seeds" or "going down blind alleys." Amazon's executives learn and uncover opportunities as they go, with many dead ends but also sometimes a huge, broad avenue.

Montessori isn't just primary education

The impression that the Montessori approach is just for primary school was corrected. There are an increasing number of Montessori schools that educate kids in grades 7-12, as shown in this extensive overview of Montessori at the secondary level. The crown jewel of these programs, according to Daniel Petter-Lipstein, is the Clark Montessori in Cincinnati, a free public high school which provides these results for a class of 88 students:

- 100% of the class of 2010 are expected to graduate
- 100% of the class of 2010 are going on to college
- 33% of current seniors are first generation in their families to go to college
- 33% of current seniors receive free or reduced lunch

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The Center for School Change, a research center issued a [report](#) on models of great small high schools and cited Clark as a model.

The goal of education: lifelong learning

Overall, there was resonance with the idea that education concerns inspiring students to become life-long learners with a love of education. Several readers (Geoff Barbaro, Robin Cangie) pointed to the dangers of the word “educated”, which wrongly implies that education is a destination rather than a journey. In that sense, one is never “educated”, one is always continuing to learn. If at any point, the point the journey stops, then education has failed.

Geoff Barbaro pointed to the need for education to be outward looking include the desire to face the situations of your life and to understand the situations of others, with the ability to gain the knowledge and create the experiences to achieve that desire.

Robert Picard suggested that education is really a way of looking at and interacting with the world. It involves having sufficient knowledge to ask good questions, having a willingness to consider different points of view, having the ability to analyze and make up one’s own mind and understand the basis for one’s opinion or decision. There are many ways to get an education and one of them is in school. Schools, however, turn out both educated and uneducated persons.

Randal Hendee is thrilled with ‘*A New Culture of Learning* (2011)’ because it validates practices he started using in his high school English classes way back in the early 1980s. “In literature study, for example, student response came first, and the teacher’s interpretation was never presented as definitive. Seeking to understand new material while interacting with classmates was valued over digesting spoon-fed teacher insights.”

Getting away from test-driven teaching

There was general horror at the current thrust to equate education with being able to deliver the expected answers on a standardized test. Some noted that looking at education as producing outputs (students who could pass the test) was a very 20th Century way of looking at the world, and out of sync with what is going to move society forward in the 21st Century.

Looking at education as lifelong learning is more and more in sync with what is happening in the workplace and marketplace, which is basically very good news. Firms need, and are beginning to want, people who are genuinely “educated”.

Testing the right things

The discussion touched on what’s wrong with the current approach to testing. It’s not that testing is wrong. Testing is good, provided that the right things are being measured. We desperately need to know where we are making progress and where we aren’t. The problem with today’s tests in education is what’s being tested. It’s a focus on solely counting numbers of people who have acquired the knack of providing the expected answer to a standardized test, rather than whether they have deeply understood the material, know what questions to ask and how to apply the learning in real life. In short, as in business where the world is largely run by bean counters, they are measuring outputs, rather than outcomes, with the same dispiriting result.

This way of testing is the consequence, as in business, of a view of both teachers and students as “things” to be manipulated, rather than people to be interacted with and conversed with and responded to.

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The importance of self-testing: ELLI

What is the right approach to measurement? Douglas Thomas and John Seely Brown in 'A New Culture of Learning' suggest that testing must measure the ability to ask the right questions, not just regurgitate the expected answers. Self-measurement is another key, since any teacher-imposed test about "the right answers" will always be subject to skepticism and gaming. In this respect Randal Hendee drew our attention to ELLI, the Effective Lifelong Learning Inventory, a self-assessment tool that identifies seven dimensions of "learning power."

The ELLI approach provides a research-derived rubric for a person of any age to cultivate for themselves, with the help of teachers, peers, and community members, these key dimensions of learning: changing; learning, meaning making, critical curiosity, creativity, learning relationships, strategic awareness, and resilience. In classroom practice these seven dimensions are illustrated and reinforced through metaphors and stories. Students are invited to use various metacognitive processes to enhance and evaluate their own progress. In this way they learn how to improve their own learning within a community of learners that includes both kids and adults. Randal feels that this approach, which emphasizes developing "students' self-awareness and motivation to learn," offers more promise than the currently popular testing regimes. Consciously evaluating and improving your own learning processes will likely educate you better than simply preparing for tests.

Issues are systemic, not individuals!

There was general recognition that the traditional way of educating—the sage on the stage—is today seriously suboptimal, particularly if teachers are tied to teach-to-the-test treadmills. Such systems bring out the worst in everyone and make it difficult for even the best to succeed. The top priority should be system change that brings out the best in everyone.

Daniel Petter-Lipstein wrote: the testing regime and the need for students to perform on tests is so pervasive and dominant due to *Race to the Top* and *No Child Left Behind*, that it is simply not fair to criticize any teacher who is not trying to "delight" students.

Unions must also commit to the goal

Obviously as in any sector, some actors are not up to par. In education, the performance of some teachers is problematic. While witch-hunts aimed at seeking them out don't help, neither do teachers' unions whose principal modus operandi is protecting the incompetent from accountability. Unions need to focus on the common goal of getting better education for kids. For horror stories on this subject, read Joel Klein in The Atlantic.

The debt ceiling debate as a case study

Dan Timberlake thought the discussion timely as the U.S. watches its elected leadership debate the role of national debt. A debate within his own family prompted to wonder why some combatants saw the issue as one of getting the right information, rather than being educated, with a disposition to learn more. When large numbers of people are in this condition, then we see the kind of debacle now before us, in which the drive to cut budgets is pursued without understanding that it will slow the recovery and thus make the deficit worse. All of which underlines the urgency and the importance of having an education system that instills lifelong learning in everyone.

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The etymology of “education”

Robin Cangie, appropriately, drew our attention to the etymology of the word. “Etymologically, the word education is derived from educare (Latin) ‘bring up’, which is related to educere ‘bring out’, ‘bring forth what is within’, ‘bring out potential’ and ducere, ‘to lead’.” She sees the goal of education as bringing forth human potential and helping us become more self-actualized people. Rather than occurring within a set amount of time spent at an institution, education is a never-ending process of expanding one’s potential and realizing the possibilities of one’s life. It was noted that drawing on the riches of the past and the contributions of others is an important aspect of this. The process is interactive. Being educated is a continuing journey rather than a destination. If learning stops, it would imply that education has failed.

Advice for the Gates Foundation

Robin Cangie said that it’s telling that we would even try to apply traditional business management models to education. Education is neither a business nor a commodity, and when we treat it as such, the capacity of our institutions to actually educate breaks down.

Lewis Perelman reminded us of Henry Ford’s dictum that if he had asked customers what they wanted they would have said, ‘a faster horse.’ He believe that the Gates Foundation is sadly pouring substantial resources into the wrong paradigm, effectively seeking to breed a faster horse.

He sees Thomas and Brown in their book, *A New Culture of Learning* as being closer to the right track, though he remains concerned that the term “learning” invokes shopworn images of classroom and teacher. He drew our attention to a fascinating 1997 interview, as well as his own prescient book written in 1992, *School’s Out: Hyper learning, the New Technology, and the End of Education*.