

# The Hazards of the Great Example

*To foster innovation in school, we need evidence of what works*

## **Creating Innovators: The Making of Young People Who Will Change the World**

by Tony Wagner

*Simon & Schuster, 2012, \$27; 270 pages.*

### *As reviewed by Mark Bauerlein*

The future of the United States depends on its innovators. That's the first premise of Tony Wagner's vision of 21st-century schooling. Indiana governor Mitch Daniels declares on the back cover of the book, "In the equation of world success, superior innovation is the only factor that can keep America #1," and diverse experts are quoted to that effect several times, as well as starring in videos embedded in the text that readers can access by using their smartphones to scan the code on the page. (All the videos were created by documentary filmmaker Robert Compton and are available at [creatinginnovators.com](http://creatinginnovators.com).) We can't restore the manufacturing that sustained the U.S. through the 20th century, Wagner insists, and we can't rely on consumer spending when un- and underemployment are so high, and we can't keep polluting the planet, so "We must outinnovate our economic competitors."

But how do we create more innovation when innovation is unsystematic and unpredictable? That's the question motivating *Creating Innovators*, and Wagner answers it by conversing with savvy employers and inspiring mentors, and by profiling eight millennial innovators whose examples point the way. The portraits fill up half the book, including a product designer who improved Apple's iPhone and now works for a start-up trying to alter the electric power system; the founder of a company that created a nifty platform

for 3-D design (purchased by Autodesk in 2010); a youth who secured funding to distribute malaria nets in Africa; and a shoe designer working with three universities to develop organic shoes.

Goal-oriented but selfless, smart but quirky, these innovators combine dazzling imagination with earnest compassion and real-world know-how. They don't always earn good grades and hefty paychecks, but they "Think Big" and devise goods and services that meet others' needs and aspirations, not to mention the world's betterment. When we

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read about these individuals, we note how special they are, but for Wagner this is precisely the problem: "we need to produce more than just a few entrepreneurs and innovators." Indeed, "To maintain our standard of living and improve our world, every young person needs to become an innovator."

In light of abundant data on low academic achievement and effort among

high school students, Wagner's goal sounds impossible, but years of experience plus 150 interviews he conducted for the book convince him otherwise. The reason we don't have 50,000 innovators graduating from high school and college every year, he maintains, isn't because of what we have failed to do. It's because of what we actually do over and over again.

The pattern begins in the home with mothers and fathers who, high on achievement, become helicopter parents and "tiger moms." Instead of letting their kids play and imagine, experiment and fail, they schedule and monitor. It gets worse when children enter school and undergo an accountability system filled with unimpressive teachers teaching narrow content in the same boring way and valuing every student by a uniform quantitative yardstick.

The home and school habitats squelch the very attributes and experiences of innovators. Parents of the remarkable youths in the book acted differently, caring about homework and extracurriculars but ensuring hours of free time and unstructured play each day. They didn't push a particular discipline or career, but rather watched where their kids' passions went and facilitated their pursuits. They let children take risks and make mistakes, and they asked them to think altruistically and "give back."

Wagner's innovators thank their parents for the freedom and encouragement, but they regret the schools they attended. In his interview, engineering whiz Kirk "said not one word about the many academic courses he'd taken at Stanford." Another innovator treasures peers more than professors: "I've learned more from doing this work with my colleague...than I have from

most of my teachers at Tulane.” When Jamien was in high school, his teachers tried to cure his “shoe addiction,” and he ended up taking his inspiration during an internship at AutoZone from his boss, a graphic designer.

Their frustrations make sense, Wagner observes, for innovators are curious, experimental “design thinkers,” not test takers and homework drones. Their talents escape conventional assessments, and they care less about mastering the content of a discipline than doing something with it. As Paul Bottino, director of Harvard’s Technology and Entrepreneurship Center, tells Wagner, “More and more students are saying that education which is merely content delivery doesn’t work, doesn’t stick. For students like David [one of the profiles], it’s about applying what they know, in order to connect the dots.” The more we should admire them, then, for their outlook tallies better than the prevailing curricula the 21st-century situation in which “what you know is far less important than what you can do with what you know.” The answer is clear: we should cultivate innovative minds by making homes more about play and passion and schools more about collaboration, interdisciplinary studies, and worldly projects.

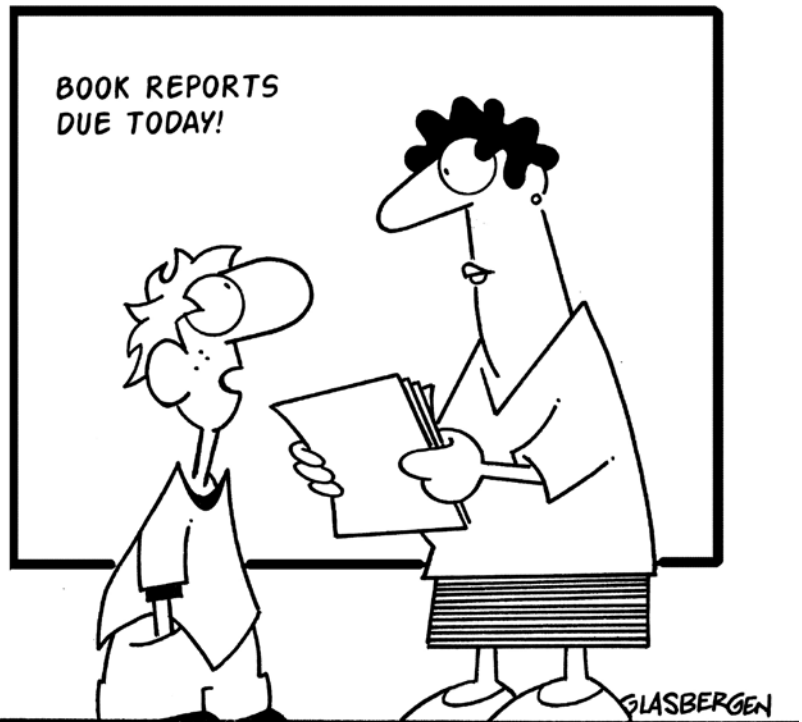
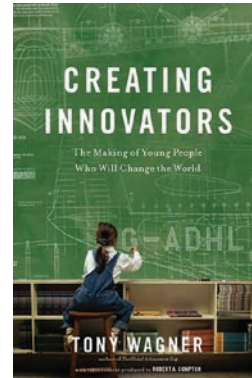
That’s the argument of *Creating Innovators*. Traditionalists dislike the rationale for downplaying liberal arts knowledge, while accountability reformers consider its criticisms just one more rehearsal of antitestifying points. But one can accept Wagner’s outlook and still identify a flaw that renders this book nothing more than a good idea to try out here and there in scattered high schools and colleges. It is that one cannot select a few unusual successes and build an entire institution upon them. Wagner regards his subjects as extraordinary persons; hence, their

blossoming proves nothing about the fate of ordinary students. He believes that “every student starts school with unbounded imagination, curiosity, and creativity,” but without empirical backing, that assertion is sentimentality, not evidence. Besides, what about the kid who has a passion for basketball, devoting hours a day on the court but barely making the JV team? Should those hours be encouraged at the expense of math homework? And are there children who, perhaps because of their homes, desperately need the very discipline and structure of schools Wagner disparages?

To accept the advantages of innovation education, we need to know what

happened to all of the students at schools and centers mentioned by Wagner, such as High Tech High—or to know what would happen to a broad range of students if they were admitted to them. Without those data, the insistence that every school and teacher be innovation-centered falls flat. Until we find out, such visions should be scaled back to more modest proportions, for instance, a district that devotes a few high-school classrooms to innovation education and monitors the outcomes for different types of students.

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“It’s not called ‘plagiarism’ anymore. It’s ‘pre-packaged originality’.”