



[Buy this issue](#)

Share on **Twitter**

Share on **Facebook**

Share on **LinkedIn**

Share on **Google+**

- [Read Abstract](#)

February 2013 | Volume **70** | Number **5**

Creativity Now! Pages 57-59

U-Turn to Prosperity

Yong Zhao

The road to success in the new world economy requires more creative thinkers, innovators, and entrepreneurs than ever before. Why is the United States going in the wrong direction?

Facebook doesn't need factory workers," wrote technology journalist Marcus Wohlsen in a 2012 *Wired* article titled "Silicon Valley Creating Jobs, But Not for Everyone." He was writing about a major phenomenon identified by some economists—the *hollowing-out* process that is reducing the number of mid-level jobs in the United States. Thanks to globalization and technological advancement, traditional middle-class jobs, such as manufacturing, have been disappearing quickly, offshored to other countries or replaced by machines.

The U.S. economy is growing—companies are making record profits and investing, and new businesses are created every day. But that growth is creating jobs at the very top and the very bottom, says Alan Krueger, chair of the Council of Economic Advisers (Aspen Institute, 2012). The new economy favors highly skilled, highly educated workers, and their prosperity creates greater demands for low-paying service workers—but not for the kind of medium-skilled, middle-class jobs that formed the backbone of the workforce in the past (Wohlsen, 2012).

In the meantime, companies are hiring fewer people in the United States. Traditional kinds of jobs are being replaced by technology at an accelerating rate (Brynjolfsson & McAfee, 2012), and those jobs that cannot be computerized continue to be outsourced to other countries with lower labor costs. Apple Computers, for example, employs fewer than 50,000 workers in the United States, while millions of workers in China make its iPhones and iPads (Duhigg & Bradsher, 2012). In a widely cited paper published in *World Economics*, Alan S. Blinder (2009) estimates that "between 22 percent and 29 percent of all U.S. jobs are or will be potentially offshorable within a decade or two" (p. 41).

In addition, "America's working age population will continue to grow for at least the next few decades," MIT's Andrew McAfee writes in a 2012 blog post. He predicts that "the employment ratio will not start to trend upward in the coming years. If anything, I think it'll decrease."

This is bad news for the United States, a country that has thrived on the strength of its middle class. Short of taking unrealistic actions, such as destroying the machines or bringing back the lost jobs, what can we do to create the new middle class?

The Creative Class

Economist Richard Florida (2012), author of the international bestseller *The Rise of the Creative Class*, suggests that

the answer lies in the growth of a new sector of the U.S. workforce. He defines the *creative class* as

people in science and engineering, architecture and design, education, arts, music, and entertainment whose economic function is to create new ideas, new technology and/or creative content. Around this core, the Creative Class also includes a broader group of creative professionals in business and finance, law, health care, and related fields. These people engage in complex problem solving that involves a great deal of independent judgment and requires high levels of education or human capital. In addition, all members of the Creative Class—whether they are artists or engineers, musicians or computer scientists, writers or entrepreneurs—share a common ethos that values creativity, individuality, difference, and merit (pp. 8–9).

This creative class, says Florida (2012), now includes some 40 million individuals—about one-third of employed people in the United States (p. 8). During the economic meltdown, the creative class fared better than other segments of the economy, losing fewer than 2 percent of its jobs from 2008 to 2010 whereas the blue collar and service sectors lost one in six jobs. Moreover, creative class workers saw their wages grow by 4.4 percent during the recession, whereas the wages of blue collar workers declined by 4.6 percent (Florida, 2011).

Daniel Pink (2006) offers a similar answer in his book *A Whole New Mind: Why Right-Brainers Will Rule the Future*. Pink writes that we have passed through the agricultural age (which needed farmers); the industrial age (which needed factory workers); and the information age (which needed knowledge workers); and have now entered the conceptual age, which needs creators and empathizers. The future belongs to a very different kind of person with a very different kind of mind. According to Pink, jobs for "creators and empathizers, pattern recognizers and meaning makers" are less likely to be automated or offshored and are in high demand for making products to meet the needs of the new age. "These people—artists, inventors, designers, storytellers, caregivers, consolers, big picture thinkers—will now reap society's richest rewards and share its greatest joys" (p. 1).

Following the same line of thinking, Philip Auerwald (2012) argues that "the vast majority of alleged threats to humanity are, in fact, dwarfed by the magnitude of opportunities that exist in the 21st century" (p. 8). These opportunities, he asserts, will be harnessed by entrepreneurs.

Human societies have always benefited from great innovators, right-brained talents, and entrepreneurs, who have brought scientific discoveries, technological advancements, arts, music, literature, wealth, and prosperity. But until recently, this group constituted only a small portion of the entire population. In fact, in the agricultural and industrial ages, we needed many more people to suppress their creativity so they could follow orders to complete their repetitive and routine tasks.

Today, human societies have arrived at a point when creativity and entrepreneurship have become a necessity for almost everyone if we are to continue to prosper. Creativity is no longer a choice for a select few; it has become an essential quality for all.

Headed in the Wrong Direction

Sadly, as the demand for creative and entrepreneurial talents has increased, U.S. education has been put on a path that is reducing its capacity to produce creative and entrepreneurial citizens. After three decades of standards-based reforms and more than a decade of test-driven accountability exemplified by No Child Left Behind, the United States is near the end of a revolution that effectively turns education into indoctrination, mistakes diversity for distraction, and interprets teacher and student autonomy as complacency with the status quo.

The \$4 billion federal Race to the Top program and the Common Core State Standards Initiative are working hard to complete this revolution by forcing all teachers to teach to the tests. The once unthinkable ethos that defines education as standardization and measures success with standardized test scores will soon fill almost all U.S. classrooms and squeeze out any room for creativity.

The consequences are dire. Research by Kyung Hee Kim, an educational psychology professor at the College of William and Mary, indicates that the creativity of U.S. adults and children has decreased over the last 20 years in all of the categories she measured using the Torrance Tests of Creative Thinking, including the number of ideas produced, the ability to produce unique and unusual ideas, the ability to develop and elaborate on ideas, the ability to know what is important, and intellectual curiosity and open-mindedness (Britannica Editors, 2010a). Kim ascribes this decline partly to societal and home factors, but she points out that "an elephant in the room is the No Child Left Behind Act," which "may stifle teachers' creativity because the high pressure to cover the content required to produce passing test scores overrides the desire (and time) to stimulate children's imagination and curiosity" (Britannica Editors, 2010b).

Saving Creativity

Like schools in most other parts of the world, U.S. schools have long followed an education paradigm designed to prepare employees for a workforce that required millions of people with similar skills and knowledge to complete repetitive and routine tasks common in the industrial and information ages. Like sausage making, education following

this paradigm aims to produce a standardized product—the more standardized the better.

But for historical reasons, the United States is not as good at "sausage-making education" as most other countries are. A decentralized education system that allows local autonomy, the lack of a national curriculum, a broad conceptualization of success that tolerates diversity, and teaching practices that respect individual differences have made U.S. schools relatively ineffective in producing students who score high on standardized international tests. But this very ineffectiveness has made schools more successful in preserving students' creative and entrepreneurial talents.

Mistaking test scores as a good measure of education quality, U.S. reformers have ignored this lucky accidental outcome. Instead of working to preserve the traditional strengths of U.S. education, they have rushed toward more standardization. Simultaneously, the high performers in international tests, such as China and Korea, have been working hard to emulate the United States as they struggle to foster more creative and entrepreneurial citizens.

To build a new middle class, the United States must make a U-turn in our education policy. We must return to the traditional strengths of U.S. education: multiple criteria for judging education success, tolerance for difference and diversity, a broad curriculum, respect for professional autonomy, decentralized and local governance, and an emphasis on the child rather than on externally prescribed and standardized knowledge and skills.

But we must also go beyond these strengths, for although traditional U.S. schools tolerated creativity, they did not intentionally cultivate creativity, foster the entrepreneurial spirit, and encourage the development of individual talents. Returning to tradition may limit the damage, but it is not sufficient to help every student become creative and entrepreneurial. We need to shift from a paradigm that ensures that every student achieves the same standardized knowledge and skills to one that enhances every student's individual strengths and nurtures his or her passions and interests. I call this new paradigm *entrepreneur-oriented education*.

There are three essential elements in this new paradigm. First, learning experiences should be personalized, following each student's interests and enhancing his or her strengths because today any talent, when fully developed, can be valuable. Second, learning should be product-driven, ensuring that students are engaged in creating products and services instead of simply consuming information. Finally, learning should occur in the broad context of globalization, and technology should be used to expand students' learning beyond the school to the globe. Combining all three of these elements will create an education environment that will cultivate the graduates we need: globally competent, creative, and entrepreneurial.

Author's note: Descriptions of schools that foster creativity can be found in my new book *World Class Learners: Educating Creative and Entrepreneurial Students* (Corwin, 2012).

References

- Aspen Institute (Producer). (2012, September 29). Reversing the middle class jobs deficit [Panel Discussion]. Retrieved from www.aspenideas.org/session/reversing-middle-class-jobs-deficit-0
- Auerswald, P. (2012). *The coming prosperity: How entrepreneurs are transforming the global economy*. New York: Oxford University Press.
- Blinder, A. S. (2009). How many U.S. jobs might be offshorable? *World Economics*, 10(2), 41–78.
- Britannica Editors. (2010a, October 18). The decline of creativity in the United States: 5 questions for educational psychologist Kyung Hee Kim [blog post]. Retrieved from [Encyclopedia Britannica Blog](http://www.britannica.com/blog/kyung-hee-kim/2010/10/18/the-decline-of-creativity-in-the-united-states-5-questions-for-educational-psychologist-kyung-hee-kim).
- Britannica Editors. (2010b, December 23). Explaining the decline of creativity in American children: A reply to readers [blog post]. Retrieved from [Encyclopedia Britannica Blog](http://www.britannica.com/blog/kyung-hee-kim/2010/12/23/explaining-the-decline-of-creativity-in-american-children-a-reply-to-readers).
- Brynjolfsson, E., & McAfee, A. (2012). *Race against the machine: How the digital revolution is accelerating innovation, driving productivity, and irreversibly transforming employment and the economy*. Lexington, MA: Digital Frontier Press.
- Duhigg, C., & Bradsher, K. (2012, January 22). How the U.S. lost out on iPhone work. *New York Times*, p. A1. Retrieved from www.nytimes.com/2012/01/22/business/apple-america-and-a-squeezed-middle-class.html
- Florida, R. (2011, October 6). The Creative Class is alive. Retrieved from [The Atlantic Cities](http://www.theatlantic.com/ideas/archive/2011/10/creative-class-is-alive/).
- Florida, R. (2012). *The rise of the creative class: Revisited* (2nd ed.). New York: Basic Books.
- McAfee, A. (2012, January 5). The rebound that stayed flat [blog post]. Retrieved from [Race Against the Machine](http://www.raceagainstthemachine.com/blog/2012/01/05/the-rebound-that-stayed-flat/).
- Pink, D. H. (2006). *A whole new mind: Why right-brainers will rule the future*. New York: Riverhead.
- Wohlsen, M. (2012, August 3). Silicon Valley creating jobs, but not for everyone. *Wired*. Retrieved from [www.wired.com/business/2012/08/silicon-valley-creates-jobs-but-not-for-everyone](http://www.wired.com/wired/2012/08/silicon-valley-creates-jobs-but-not-for-everyone/)

[Yong Zhao](#) is Presidential Chair and associate dean for global education in the College of Education, University of Oregon, where he is also Weinman Professor of Technology and professor in the Department of Educational Measurement, Policy, and Leadership. He is the author of [Catching Up or Leading the Way: American Education in the Age of Globalization](#) (ASCD, 2009).

KEYWORDS

Click on keywords to see similar products:

[creative thinking](#), [student engagement](#)

Copyright © 2013 by ASCD

Requesting Permission

- **General Requests:** [Online Permission Request Forms](#)
- Requests to **Photocopy:** Contact [Copyright Clearance Center](#)
- Requests for **Electronic Access** and **Web-Based Use:** Contact [Copyright Clearance Center](#)
- Requests to **Translate** an entire ASCD publication: E-mail [Translations](#)