

**THORNBURG**  
C E N T E R



Pragmatic Visionaries

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During the height of the dot-com boom, I wrote a book on education called *the New Basics* (Thornburg, 2002). The premise of this book was that today's youth were growing up in a world fundamentally different from the one in which their parents were educated. Among other things, this book stressed the need for creativity, technological fluency, problem-solving ability, entrepreneurial skills, and a host of other attributes that were not commonly being taught in our schools, yet which were needed once children left school.

Shortly after this book was published, the dot-com bubble burst, and some felt that the skills I addressed no longer mattered.

In fact, they mattered even more. For one thing (as I also pointed out) the internet was being used to globalize commerce in ways that boggle the imagination. One short-term response to the global growth of broadband telecommunications was the outsourcing of low-wage service jobs to other countries. Anyone tracking down a bag lost by United Airlines, for example, is provided with an 800 number answered by someone in a country where it is daytime, no matter what time it is in the United States. While Bangalore, India is most commonly mentioned as the destination for outsourced service jobs, many other countries with (comparatively) low wages have massive call centers handling everything from lost baggage to technical service on personal computers.

I have cautioned audiences throughout the US that any job that can be automated or outsourced, will be. The positive side of this coin (in my view) was that the uniquely creative spirit of Americans would foster continued growth of our economy, no matter how many low-wage service jobs were lost. The creativity and educational excellence fostered in American schools (especially colleges and universities) would provide a steady stream of new ideas, products, and services that would have global markets, and help us sustain our standard of living.

Take Hollywood for example. Testifying before the US Senate, Jack Valenti once said, "The U.S. movie industry alone has a surplus balance of trade with every single country in the world. No other American enterprise can make that statement." The power of the creative machinery behind America's film industry is amazing. This is why it is important to note that three of the most popular films of the last few years were created in Wellington, New Zealand! Furthermore, as Wellington invests its resources to grow their film industry, they are attracting bright expatriates from around the world to seek their fortunes there.

OK, we could lose Hollywood, but we still have all the high tech and bleeding edge science happening here, right? Well, as Professor Florida points out in his book, *the Flight of the Creative Class*, (Florida, 2005), our edge in this arena is being threatened as well.

Imagine a powerful group wanted to hurt the United States economically. What would they do? First, they'd probably keep foreign students from entering our colleges and universities, and especially graduate schools, since this foreign talent has traditionally proven to be highly entrepreneurial (think Jerry Yang, co-founder of Yahoo, Jeff Bezos' family (Amazon), Andy Grove (Intel), and on and on). Second, they'd block funding for advanced research in the sciences at the university level (e.g., the DARPA funding that created the internet in the first place). Third, they'd cut math and science resources at the elementary and high-school level since skills in these areas are essential to our economical growth (e.g., shutting down funding for ERIC and the Eisenhower National Clearinghouse for Mathematics and Science Education). Fourth, they'd cut funding for educational technology, and work to disconnect schools from the global internet (e.g., eliminate educational technology from the proposed US budget; sporadically freeze the release of funds for e-Rate telecommunications grants for schools).

To paraphrase *A Nation at Risk* (1983), an historic document on the status of education in the United States, If an unfriendly foreign power had attempted to impose on America the educational challenges that exist today, we might well have viewed it as an act of war.

Couple this to an incipient brain drain of American talent to other nations, and you can imagine the potential impact of these self-inflicted challenges.

Fortunately, in the midst of these challenges, there is a beacon of hope that is transforming the lives of thousands of children and preparing them for a successful future – the EAST Initiative ([www.eastproject.org](http://www.eastproject.org)).

EAST derives its power from the realization that young people can be incredibly self-reliant problem-solvers who use a variety of tools (including the latest technologies) to advance their communities and themselves at the same time. Anyone attending the annual EAST conference gets to see amazing projects created by groups of students from all over the country – projects as diverse as their creators, yet all built around a common theme: Given the right climate, children can create projects that have a positive impact on their community.

The spectrum of EAST projects is quite wide. One may involve high-school students in the creation of a Spike Lee-quality documentary designed to keep children from joining gangs ([http://videosystems.com/mag/video\\_one\\_last\\_shot/](http://videosystems.com/mag/video_one_last_shot/)). Another may have high-school students trump Archaeology graduate students in discoveries relating to the history of a California Mission (<http://www.syvnews.com/articles/2005/04/15/news/local/news01.txt>).

You'll find everything from local projects relating to pet shelters, to others whose impact are global in reach.

When I talk about EAST in my presentations, some educators get the mistaken impression that this is a program only for gifted and talented students. I don't disagree. EAST students are gifted and talented. It's just that many of them didn't know that when they started their projects. Several EAST projects are in schools that are continuing-education facilities. Some EAST students are former gang members, or have been in drug rehabilitation programs. And, yes, some EAST students have been previously identified as gifted. EAST is for everyone.

The fact is we need all the talent we can find. If we truly believe in the quest that no child be left behind, then programs like EAST take on special meaning. The underlying educational model that drives EAST is constructivist, and students engage in inquiry-driven project-based learning – strategies that foster true learning and mastery, as opposed to the memorization of content that gets quickly forgotten right after being tested.

As for standards-based learning, every EAST project I've seen addresses (usually in a deep way) standards to which we should hold all students, even if the specific standards are not identified at the start of the projects.

The challenges facing our country are great, but I sleep better each night knowing that thousands of young people are preparing themselves for an exciting future, no matter how the global economy shapes up in the next few years. These young people are developing the skills and habits of mind that will help them, and us, thrive for many years to come.

**References:**

Florida, Richard (2005). *The Flight of the Creative Class: The New Global Competition for Talent*, Harper Business.

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**About the author:**

Dr. David Thornburg is the founder of the Thornburg Center, and a board member of the EAST Initiative.

Through his Center, Dr. Thornburg shares views on the future of education and educational technology with audiences worldwide. He and his wife, Norma, are staunch supporters of inquiry-driven project-based learning and they conduct workshops on this (and related) topics as well as present at numerous conferences each year.

The Center maintains offices in the United States and Brazil, and its members consult on nearly every continent.

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