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SILICON VALLEY / SAN JOSE  
**Business Journal**

## OPINION

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### Guest comment

## Education remains key to holding competitive edge

Belle Wei

There's been a lot of discussion in the news and elsewhere about how long the United States can maintain its position as the world's technology leader. The facts are difficult to ignore. Other countries are investing heavily in the infrastructure necessary to become more competitive. In fact, worldwide, the ratio of science and engineering degrees to the college-age population is higher in more than 16 other countries than in the United States, according to the National Science Board.

The United States is facing massive retirements among technology and science workers. Yet there is a decreasing interest in science and engineering disciplines by our young people. These major factors impacting the future of America's technology industry should be of deep concern to our nation's business leaders, politicians and educators.

There are, however, reasons for optimism locally, but with so much focus on offshoring as a threat to employment opportunities, our college-age students are getting self-defeating messages rather than the good word.

We want students to know that in spite of the economic downturn, the technology industry continues to be a critical driver of the local and regional economy. Nearly 50 percent of all wages in San José are paid to workers in the technology industry. The wealth generated through this sector has contributed significantly to our community's quality of life.

At a time when the need to build a competitive infrastructure for innovation couldn't be greater, how will we, as one of the most creative and entrepreneurial communities in the world, preserve and develop the one strength that has differentiated us from others -- our ability to innovate?

I believe the answer lies in recommitting our energies on our young people, who are the next generation of innovators and wealth creators. It's the responsibility of everyone to encourage and educate them,

whether you're a parent, an educator, a business, community or political leader.

Globalization is real. So, too, are increasingly limited state dollars for higher education. But those challenges don't lessen our obligation to our young people.

When we help them get excited about technology and prepare them for engineering and technology jobs that require innovative thinking and global awareness, we're helping our economy and ourselves. Graduates will be better prepared to find employment if they have aggressively developed the high-end research and development skills that continue to be highly marketable in this country.

For example, last year, San Jose State, in partnership with Silicon Valley technology business leaders who have strong ties in the Asia Pacific region, formed the Global Technology Initiative, made possible by a \$1 million endowment fund. The goal of the initiative is to help students gain international knowledge and skills, and a first-hand global perspective on technology and business developments to better prepare them for the workforce.

After a one-unit course of study this spring, 20 top engineering students, led by faculty and industry sponsors, went on a two-week study tour of Taiwan and China where they visited various companies, universities and cultural sites.

At the start of the tour, the students report, they continually "battled" with the question: How can American engineers survive and thrive in the face of such competition? Afterward, they came up with an answer: First, to approach the issue from a unified perspective, and second, to recognize that we are not in competition with China and Taiwan. Rather, the students concluded, we are at a point where the global pool of intellectual talent has increased with contributions from leading Pacific Rim researchers and scientists. Therefore, it's to our benefit to work as a team to innovate, to stretch the limits of human imagination, and to continue to solve issues such as the environmental side effects of technology.

That's the message we want our young people to internalize. As a community of educators, business leaders, and elected officials, we must continue to invest in education. And come up with creative solutions like the GTI that will benefit our youth and allow our nation to maintain its competitive edge.

On a personal level, ask yourself the question: What can I do to make a difference for our young people -- and in so doing, the future of our society? At the very least, take every opportunity to encourage them to follow their hearts and become the next generation of innovators.

Because without the intensified focus on our young people, 30 years from now, the quality of life as we know it in Silicon Valley will change in ways none of us can imagine. The choice is ours.

*Belle Wei is dean of San Jose State University's College of Engineering.*

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