

CAROCP Market Watch

California Association of Regional Occupational Centers and Programs

(A Monthly Trends & Forecasting Report)
January 2007

HOW TO BUILD A STUDENT FOR THE 21st CENTURY (*Education, Child Development and Family Services*)

American schools aren't exactly frozen in time, but considering the pace of change in other areas of life, our public schools tend to feel like throwbacks. Today's economy demands not only a high-level of competence in the traditional academic disciplines, but also what might be called 21st century skills. Here's what they are:

Knowing more about the world. Kids are global citizens now, even in small-town America, and they must learn to act that way. Mike Eskew, CEO of UPS, talks about needing workers who are "global trade literate, sensitive to foreign cultures, and conversant in different languages" – not exactly strong points in the U.S., where fewer than half of high school students are enrolled in a foreign-language class and where the social-studies curriculum tends to fixate on U.S. History.

Thinking outside the box. Jobs in the new economy put an enormous premium on creative and innovative skills, seeing patterns where other people see only chaos. Traditionally that's been an American strength, but schools have become less daring in the back-to-basics climate of NCLB. Its interdisciplinary combinations – design and technology, mathematics and art – that produce YouTube and Google.

Becoming smarter about new sources of information. In an age of overflowing information and proliferating media, kids need to rapidly process what's coming at them and distinguish between what's reliable and what isn't. It's important that students know how to manage it, interpret it, validate it, and how to act on it.

Developing good people skills. EQ, or emotional intelligence, is as important as IQ for success in today's workplace. Most innovations today involve large teams of people so we have to emphasize communication skills, the ability to work in teams and with people from different cultures. [Time](#), December 18, 2006

ALL FOGGED UP (*Marketing, Sales, and Service*)

As retailers seek to cope with \$30 billion in shoplifting and employee theft, there's a revolution at hand in surveillance systems. To foil burglars, retailers are looking beyond alarms and iron roll-up gates. Some are trying the new fog machine. When the system is triggered by someone breaking and entering, it takes just a minute to create a dense, nontoxic fog that obscures visibility. Crooks panic and grope their way out of the store without stealing anything. The fog is similar to theatrical smoke and stymies the thief until police arrive.

During store hours professional shoplifters walk off with huge amounts of selected items and resell them at a discount. Losses per incident have gone from \$265 in 2003 to \$855 today. New video cameras can help. Macy's, CVS, Babies "R" Us, and others are using surveillance software to recognize unusual activity and notify the guard. [Healthy Home News](#), January 2007

TODAY'S TECH DYNAMOS *(Information Technology)*

Is technology still a high-growth industry? Despite the success of MySpace and YouTube, much has been made of the sector's sluggishness following the dot.com bust. However, BusinessWeek.com's annual *Tech Hot Growth 50* ranking makes it clear that there is plenty of headroom remaining in the industry. The nature of that growth though has changed dramatically. No longer do all companies in technology have a strong tailwind of 15% to 25% increases. Instead, the overall sector is growing at single-digit rates. Go to www.businessweek.com/go/07/tech50 for the full article.
BusinessWeek, January 15, 2007

KEEP YOUR WORD *(All Sectors)*

Poor managers create plenty of problems for companies including low morale, less production and higher turnover. A recent study by Florida State University found that a good working environment is often more important than pay and that employees don't leave their job or company, they leave their boss. Surveyed workers reported the following:

- 39 percent of workers said their supervisor failed to keep their promises.
- 37 percent said their supervisor failed to give credit when due.
- 27 percent said their supervisor made negative comments about them to other employees or managers.
- 24 percent said their supervisor invaded their privacy.

Employees who reported issues with their supervisors reported more exhaustion, job tension, nervousness and depression. The Register, January 8, 2007

YOUNG CAREGIVERS: CHILDREN HELP THEIR PARENTS *(Education, Child Development and Family Service)*

The ranks of young caregivers are large and expected to grow, given advances in medicine and technology. People with conditions such as Lou Gehrig's disease, multiple sclerosis, lupus, cancer, and heart disease are living longer. A 2005 study found as many as 1.3 million to 1.4 million children in the U.S. ages 8 through 18 provide care for a chronically ill or disabled family member. Sixty percent of child caregivers helped with a task such as bathing, dressing or feeding. A fourth of the children had no one helping them with the tasks, and about half said the care giving took a significant amount of their time. Boys were almost as likely to provide care as girls. More than 400,000 were under 12. About 60% of the children came from households earning less than \$50,000.

While motivated by love and devotion, these children often have little choice. Many live in single-parent homes, with only the ill parent. In two-parent households, the healthy parent may be working. Few can afford paid home-care help, which generally costs from about \$140 to \$180 a day. Skilled nursing care costs much more. Policy makers and family advocates say they had been unaware that so many children were providing such care. Previous studies only polled caregivers 18 years of age or older.

The Wall Street Journal, January 5, 2007

DEBATE PERSISTS ON QUOTA FOR NURSES *(Health Science and Medical Technology)*

A bill introduced in Congress last year would set national standards limiting the number of patients each registered nurse can care for in each hospital unit based on severity of

illness. Proponents of ratios cite a 2002 study conducted by the University of Pennsylvania, which showed that the odds of patients' dying increased by 7% for every additional patient in the average nurse's workload; for nurses with eight patients instead of four, there was a 31% higher chance of dying within 30 days of admission. Opponents of mandated ratios say none of the studies of staffing and quality have identified the optimal ratio, and there is no direct evidence that setting minimum staffing ratios improves care, especially when ratios don't take into account differing skills of nurses and the severity of the patients' illnesses. Many experts warn that a worsening nursing shortage will make it harder to comply with minimum ratios. Hospitals are unable to fill about 118,000 positions at present, or an 8.5% vacancy rate; by 2020, the shortage is projected to rise to more than one million nurses.

New alternatives to ratios are being considered: medical-surgical units are being designed so nurses, who may spend only a third of their time on direct patient-care activities, can reduce time spent on paperwork, charting, finding supplies and resolving operational problems. Hospitals are also turning to sophisticated computer programs and models to help them analyze their staffing needs and allocate the nurses on staff more efficiently. Some hospitals are using a "Traffic Light" system with red, orange, yellow or green signals that enables them to see on a computer screen where nursing-care shortages are mounting and move nurses from other units as needed.

The Wall Street Journal, December 13, 2006

WHO NEEDS A RECORD LABEL? *(Arts, Media, and Entertainment Technology)*

Most musicians dream of the day they sign with a major record label but many are opting to become an "e-band," peddling their music online. Artists are increasingly being offered a broader set of tools to distribute their music online. Opportunities are ample at such sites as Yahoo Music and at digital distributors like Tune Core, Orchard and Digital Rights Agency. The independent distributor takes a \$4 fee per album sold on its site, giving artists a bigger cut of their record sales than they would get through a label. However, a band that sells exclusively over the Internet has to be responsible for promoting its own music, developing a fan base and booking its concert schedule.

It's still nice to have the deep pockets and clout of a major record company. Without them, the guest shot on "The Late Show with David Letterman," the music video, the spot on a radio play list and the headlining concert remain long shot dreams for most artists. Nonetheless, the Web is turning into a viable alternative with which bands can develop a following and earn some money while still pursuing fame and fortune.

The Los Angeles Times, December 10, 2006

OPERATING ROOM ON WHEELS *(Health Science and Medical Technology)*

Medical devices change so fast that doctors frequently need training on new technologies. If doctors want to learn new technology, they usually travel to training conferences or other hospitals that are using the device. To speed up the process, Medical Simulation of Denver created mock operating rooms inside buses. The vehicles travel to hospitals across the country and hold training sessions in parking lots. There, doctors can practice on mannequins that have been rigged to re-create the look and feel of patients, complete with unpredictable complications.

The company's latest bus promoted the NexStent for treating blocked carotid arteries. In the simulated operating room, the doctor can take angiograms of the mock patient. Then the stent is threaded through a catheter in the groin to reach its desired target and pin plaque against the arterial wall. The Orange County Register, December 28, 2006

TECH-SAVVY STUDENTS STRUGGLE WITH INFORMATION LITERACY *(All Sectors)*

A new report from Educational Testing Service (ETS) finds that the majority of high school and college students lack the proper critical thinking skills when it comes to using hardware and software, researching online and using sources. Mary Ann Zaborowski, executive director of product management with ETS says, "When we think about students today, they're the millennium children. They've grown up around technology. They've been automated with all kinds of computers, cell phones, digital cameras and music. They're better versed than any of us who preceded them in terms of how to use these devices. But there's a startling gap in their ability to cognitively apply this technology in meaningful ways."

One of the problems, Zaborowski points out, is students' over-reliance on search engines such as Google when it comes to researching topics. The study found that students typically would type in a search keyword, then go to the first search result and use it as an authoritative source. The problem with this approach is that a number of top search results on Google are often slanted or biased. Through a process known as "Google bombing," people can alter the top results for a search term. For example, when you key in the word "failure" into Google's search engine, the top result that appears is the White House biographical page for President George Bush. eSchoolNewsonline, November 28, 2006

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California State Standards for Career and Technical Education (CTE)

Industry Sectors

1. Agriculture and Natural Resources
2. Arts, Media, and Entertainment Technology
3. Building Trades and Construction
4. Education, Child Development and Family Services
5. Energy and Utilities
6. Engineering and Design
7. Fashion and Interior Design
8. Finance and Business
9. Health Science and Medical Technology
10. Hospitality, Tourism and Recreation
11. Information Technology
12. Manufacturing and Product Development
13. Marketing, Sales, and Service
14. Public Services
15. Transportation

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