Vol. 8, no. 2 (Fall-Winter 2009-2010)

Highlights: World Future 2009
Chicago, Illinois, USA
July 17-19, 2009

Jay Herson

Approximately 900 futurists from all over the world converged on Chicago last summer for another successful World Future Society annual meeting. Among the most notable talks were those that talk addressed the future of education and employment, three of which I have synopsized.

Opening Keynote: Grown Up Digital – The Net Generation and Its Implications, by Don Topscott

The keynote speaker at World Future 2009, Topscott discussed the implications of the net generation to business, education, and governance. A salient and pervasive point throughout his presentation was "Don't predict the future – create it."

Business can best create its future by studying the generation just now entering the workforce – those born between 1977 and 1997, suggested Topscott. He refers to this cohort the "echo generation" but others use the term "net generation." These are the digital natives, those who know no other form of communication. This is the generation that has grown up digital and it is the future workforce.

This is the first time in history where children know more about the main means of communication than their parents. The net generation's communication is geospatial (communicate and work from anywhere in the world, meet and collaborate constantly with strangers on the Web). This generation can multitask, and employers should take advantage of this.

Employers should not try to recruit this generation using traditional means, continued Topscott. They must engage the digital natives early in their lives through social networking and hold on to them until they complete their educations. Even then this generation may work for a few years for a company as an employee, then as an occasional contractor, then later as an employee again. Employers should take these talented people any way they can get them and in any city they may be living in. The best resources might be outside the company.

Advised Topscott, once a net generation employee comes on board, employers would be wise to remember:

Work = collaboration = learning = fun

Their tools will be social networks, wikis, RSS feeds, and blogs, not training classes, Topscott envisioned. The net generation wants constant feedback on performance, not annual reviews. To sell products to the net generation, create websites that build communities. The speaker's 20 year old son was given a copy of the speaker's latest book on Christmas morning. By dinner time he had created a community of interest around the book, 130 people worldwide, and they had a constitution and elected officers all by the time of Christmas dinner. The son previously knew only about four of the people who joined. There are many implications in this type of communication. Engage customers digitally and collaborate with them. The brand becomes not just an identifiable logo but a relationship in the interactive world.

For the net generation, all communication is customized by the user. In contrast, previous generations could not customize "The Mickey Mouse Club" or "Howdy Doody."

As for education, school systems have not kept up with the way the net generation learns, continued Topscott. The net generation students learn by writing their own encyclopedias, creating news programs, creating textbooks. Those who have childhood diseases are collaborating with other children with these diseases all over the globe, and new Websites can facilitate this. Topscott envisions new teaching paradigms that will supplant those that are more familiar:

Teaching Paradigms

Old	New
teacher-centric	student-centric
one way	multiple ways
one-size-fits-all	customized
student isolation	collaborative

Governments, too, will be platforms for collaboration (providing data, tools) rather than a provider of services. Governments will provide data on crime, schools, NGOs, etc. Citizens will intervene to use this info to create solutions. In a recent election, the Green Party of Canada created their platform as a wiki. Whereas the United States government presently issues social security numbers from birth, an online presence created from birth will be more important to newborns.

Lack of networked collaboration has caused failure in financial systems, energy, global governance, educational systems, industrial age manufacturing, media, science, and cities, continued Topscott. The agrarian age was overtaken by the printing press and the industrial age by the Internet. The Internet in turn has given way to the age of networked intelligence.

Complexipacity – assessing one's ability to deal with modern complexity, by David Pearce Snyder.

The world is very complex and K-12 education is not teaching skills needed to solve problems or make decisions, observed Snyder. In January 2009, *On the Horizon*, a future-oriented newsletter for teachers, issued a call for papers on measuring complexipacity and teaching to improve these skills, but not a single teacher submitted a paper. Through the Internet, however, business leaders, consultants, accountants, and engineers submitted papers.

In the past it was easier to deal with what appeared as complex at the time – e.g. fixing one's car or planting new crops. These tasks required simple solutions using existing skills. Now, however, complexity has increased substantially, several reasons for which Snyder identified:

- fiscal, social, and environmental factors
- globalization—more markets, more suppliers
- transparency and on-line media
- increasing government regulation and oversight
- universal connectivity requiring immediate response

Present curricula are inadequate for dealing with typical issues confronted in the modern world, continued Snyder, for example:

- Should I go back to school and start a new career?
- What course of treatment to select for my family member recently diagnosed with cancer?
- Should I accept a buyout and retire early or keep working?
- What type of mortgage should I take?
- What arrangements should I make for my parents now that they cannot live on their own?

School systems use standardized curricula requiring students to memorize useless information. The standard curriculum deals with everyday familiar situations. It stifles young people's natural aptitude for originality, creativity, and integrated thinking. The current curriculum is insufficient to teach higher order skills. Today's students need to learn systemic thinking, creativity, collaboration / teamwork, contextual learning, cyber literacy, problem solving, and communication. They cannot learn these skills sitting in a classroom, especially with many teachers still focused on the 3Rs (reading, 'riting, and 'rithmetic) type curriculum, said Snyder.

Computer games with students collaborating in groups is the kind of school training that employers want. Singapore is distributing computers to all families and teaching students on line in their homes. The students collaborate with other students all over their nation. In coming years, students are likely to collaborate with students in other countries even if they speak different languages because of the efficient translation software currently being created.

Asked Snyder, if America cannot modernize its teaching methods, how can it compete in global markets in the future?

The Global Talent Showdown, by Edward E. Gordon

Summarizing his book on this topic, Gordon pointed out that there are 14.4 million unemployed people in the U.S. but there are 3 million vacant jobs, and 75% of these are technology jobs that Americans are not qualified to fill. As a result, companies are moving away. Gordon forecasted 12-24 million jobs vacant during 2010-2020. America's "education to employment" system doesn't work anymore. The generation retiring is better educated than the generation working. The US has poor literacy for a developed country, and greater than 50% of the population reads below an eighth grade level, said Gordon.

He noted that other countries have problems as well. In India, literacy is a barrier to employment. In China, many college graduates don't meet Western standards. In South Korea, high school grads are more interested in business and finance than in furthering the technology that the previous generations created. The coveted degree in Japan is now the MBA, and there is a fear of science.

Many American workers refuse to update skills and many federal-sponsored re-training programs are not effective, continued Gordon. There are no jobs for the skills people are being trained for in the community the trainee lives in. The US cannot import enough people with skills. Foreign companies want to relocate in the US because their countries have retiring populations but hesitate when they realize that the skill set

they need is no longer here. Gordon noted that there is a demand for health care workers in the US but that there is no pipeline of people to replace the technicians or nurses working in health care now.

However, Singapore's educational system impressed Gordon. Singapore selects teacher-candidates, educates them to the master's degree level, and starts them teaching at high salaries. Some teachers are assigned to classrooms, some to online teaching, some to tutoring students, and some to continuing education for adults.

Jay Herson *is Managing Editor and a frequent contributor to* FUTURE*takes.*