

A '21st-Century Education': What Does It Mean?

By Marion Brady

Hear it from politicians, sales reps, consultants, and district superintendents. Read it in editorials, sales brochures, and school board policies. In a frequency-of-use contest, the phrase "21st-century education" is surely out front, ahead of "the whole child," "standards and accountability," "benchmarks," and dozens of other words and phrases that, overused and never precisely defined, have lost their punch.

What, exactly, is a "21st-century education"? The short answer, of course, is that it's whatever those who use the phrase happen to be selling. Sample the nearly 200,000 hits the words produce when Googled, and it's obvious that current dialog about the phrase has no particular meaning. A 21st-century education is "authentic." It's "safe and drug-free." It will be "project-based." Technology will shape it. Or not. It will make students "workforce ready." Market forces will be its salvation. Market forces will destroy it. It will counter the twin threats of China and India. (Just to begin a very long list.)

If H. G. Wells was right when he said that human history is "a race between education and catastrophe," and if the global-warming people are even half right, serious discussion about what a 21st-century education should look like is surely appropriate. But given the complexity of the institution of education, and the fads, ideologies, theories, economic agendas, political crosscurrents, and unexamined assumptions now demanding its attention, meaningful dialogue seems almost out of the question. It isn't even possible to imagine getting all the players around a table to talk, much less listen to each other.

But we should be trying, at least on a local level. The conversation should be clear, direct, and jargon-free, and should stick to the bottom line: what happens, or doesn't happen, in children's heads as a consequence of instruction.

There seem to be four schools of thought about what should be the main thrust of a general education in the 21st century. Each of the four asks a different question about what kinds know or can do.

School One: *How many answers do kids know?*

With few exceptions, this is the question that has long driven traditional schooling, and continues to do so in this era of subject-matter standards and high-stakes tests keyed to them.

"What did you learn in school today, Johnny?"

"I learned that John Adams was the second president, and that Montpelier is the capitol of Vermont"

"Good boy! Two right answers. Here's 50 cents. Keep up the good work."

School Two: *What do students do when they don't know the answer?*

Teachers who have given more than a moment's thought to the matter know that it isn't possible to give students answers to every question the future will hand them. They'll need to know how to find answers for themselves.

"What did you learn in school today, Johnny?"

"I learned how to use advanced Internet search engines, and how the reference section of the library is organized."

"Good boy! Here's a dollar. Keep up the good work."

School Three: *What can students actually do with their answers?*

Educators who belong to this relatively small school of thought are often praised, but given little support. This may be because standardized tests are currently driving "the system," and no one has yet figured out how to write machine-scoreable exam items that measure and attach meaningful numbers to real-world performance.

"What did you learn in school today, Johnny?"

"I learned that supermarkets are designed to get people to spend more money than they intend to spend, so Saturday I'm supposed to study the one where you shop and see if I can find examples of how they do it."

"Hmm. What subject are you taking that has you doing this?"

School Four: *What do students do when nobody knows the answers?*

It can be said with absolute certainty that the problems and challenges of the 21st century will be unlike any faced in human history. It follows, then, that the most important thing students can learn is how to construct their own answers.

A study of the "standards" states have assembled makes it clear that this school of thought has few practitioners. A good deal of lip service is given to the need for kids to engage in "higher-order thought processes," but as an examination of today's tests and measures quickly proves, that's not happening.

What's needed, if students are to adapt to and survive an unknowable future, is the ability to generate new knowledge on a monumental scale. That ability requires discovering relationships between parts of reality not previously thought to be related. And that, in turn, requires that students have in their heads a way of organizing knowledge that makes everything they know a part of a single-comprehensive, systemically integrated structure of knowledge.

The curriculum in near-universal use in America's schools and colleges since 1893 provides no such structure. Neither do "interdisciplinarity," projects, problems, Advanced Placement, the International Baccalaureate, or any other current reform effort. Fields of study often parallel, intersect, and overlap, but they can't be meshed in any intellectually-manageable way to form a whole, which means the basic tool students need for coping creatively with the unknown is being ignored.

"What did you learn in school today, Johnny?"

"I learned that my brain uses a really good system for handling information. And, according to the teacher, helping me understand how it does it is the most important thing she

can do for me. She says there's a big difference between knowing, and knowing what you know and how and why you know it."

"I have no idea what you're talking about. Run that by me again. Slower."

For more than a hundred years, study of the content of the academic disciplines and the subjects and courses based on them has determined the daily routines of millions of students. Academia's continuing attachment to fragmenting reality and studying the fragments, with no concern for the whole of which those fragments are parts, and no respect for the obvious fact that the whole is much greater than the sum of its parts, is a recipe for societal catastrophe.

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