

Gary Stager on the State of Ed Tech

Why the tech movement is on life support

The educational computing movement, once led by educators inspired by the transcendent power of the personal computer to revolutionize the learning process and transform schools, is near death. The sad state of affairs is based on a profound lack of imagination and issues unrelated to the goal of offering the greatest range of learning opportunities for every child.

My diagnosis transcends the boundaries between private and public, rich and poor schools. There are too few models of excellent practice. This column will attempt to support my strong generalizations while next month's edition will offer prescriptions for nursing classroom computing back to health.

When many of us first worked with children and computers two decades ago, we were excited by the renaissance of learning demonstrated by all sorts of learners. At-risk kids exhibited extraordinary mathematical intelligence and shy kids found a voice through all sorts of expressive media. Teachers awoke the learner within and collaborated with students on mutually interesting learning adventures.

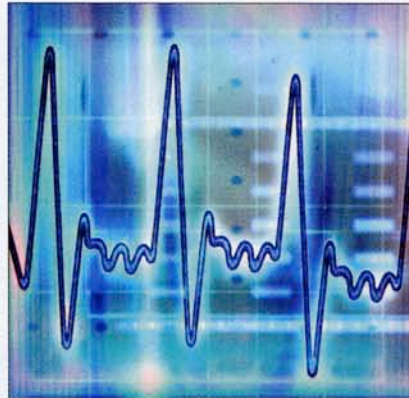
In the 1960s Alan Kay invented the personal computer with the desire for every child to have a knowledge machine. Nobody could have predicted that in 2005 the computer would be touted as a prop for teachers masquerading as game show hosts or for data disaggregation. The classroom has co-opted the computer, rather than the computer transforming the classroom. So, where are we now?

Ed Tech, the Book Report

I recently keynoted a national conference on educational technology. The corridors of the convention center had display boards featuring student work. The majority of samples on display consisted of three or four bubble

mind maps. What do plants need? Light, soil and water.

I agonized over asking my audi-



Why do we celebrate computers most trivial, mundane and incomplete usage?

ence about these displays since I did not wish to impugn the efforts of teachers or kids, but I was compelled to bring it up. "Is this the best work done with computers in your nation's schools?" The exhibits were the high-tech equivalent of publishing the first three words of a writer's outline.

Standards, Yet No Standard

Countless trees have given their lives for innumerable volumes of tech standards. These standards are unimaginative, unnecessary and unenforceable. Ohio's K-12 technology standards are 350+ pages and list 74 authors.

It requires students to demonstrate that they know how to turn on and off the computer; prioritize and apply appropriate safety measures when working with agricultural and related biotechnologies; calculate quantitatively the resultant forces for live loads and dead loads; etc.

A document so broad and ver-

bose easily descends into self-parody. Teachers are frustrated and confused and any reasonable action plan is impossible. The result of unattainable standards, limited computer access and over-zealous policies: most American students touch a computer for just a few minutes per week in school.

Conducting surveys must not be confused with educating children. Pennsylvania recently published the results of an exhaustive study of how computers were used in its classrooms. If we stipulate to the principle of NCLB, "you teach what we test," then Pennsylvania, like most states, teaches very little with computers.

All five of the student survey questions are concerned with seat-time, communication and information retrieval. The dominant paradigm for classroom computer use seems to be finding answers to simple objective questions and then displaying the "research" in four slide presentations.

School of the Future?

Our public school systems are littered with Potemkin Villages labeled "schools of the future." In far too many cases, hanging plants and carpet represent the future. Most of these schools are indistinguishable from schools 100 years ago, except for the addition of computers and an increasingly vocational curriculum.

It is easy to sell this mirage. The November 2004 issue of *Wired* features an ultra-groovy account of IBM's top-secret design for a school of the future. In it children sit at desks, arranged in rows while responding like rats in a Skinner box to multiple-choice questions displayed on high-tech blackboards. The school also hopes to take attendance via handprint scanners. Yippee!

We can do better. We must. **DA**

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