

Edtech expert discusses the revolution in computing

Dr. Gary Stager sees computers as intellectual labs, vehicles for self-expression

By Julie Phillips Randles



FOR THE PAST THREE DECADES, GARY STAGER HAS WORKED AS AN EDUCATOR, KEYNOTE SPEAKER, JOURNALIST AND CONSULTANT IN THE EDUCATIONAL TECHNOLOGY FIELD. He is an expert in topics including addressing the needs of at-risk learners and school reform. The goal of his edtech career is to help learners of all ages embrace the power of computers as intellectual laboratories and vehicles for self-expression.

Stager's expertise in educational technology has allowed him to lead professional development in the world's first laptop schools, design online graduate school programs, collaborate on the Massachusetts Institute of Technology's Media Lab's Future of Learning Group and serve as a member of the One Laptop Per Child Foundation's Learning Team.

As part of his doctoral research, Stager created a high-tech alternative learning environment for incarcerated at-risk teens. More recently, he acted as a teacher and mentor in some of Australia's most troubled public schools.

Stager has been a visiting professor at Pepperdine University and a visiting scholar at the University of Melbourne's Trinity College. He has also served as senior editor of *District Administration Magazine* and is the founding editor of *The Pulse: Education's Place for Debate*.

He is an associate of the Thornburg Center, a source of presenters and staff developers in the field of emerging technologies, and is the executive director of The Constructivist Consortium, a collaborative of six publishing companies committed to children, creativity and constructivist learning. His innovative summer educator institute, Constructing Modern Knowledge, is now in its sixth year.

In 1999, *Converge Magazine* called Stager a "shaper of our future and inventor of our destiny." The National School Boards Association recognized Stager as one of the "20 Leaders to Watch" in 2007. The June 2010 issue of *Tech & Learning Magazine*

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called him “one of today’s leaders who are changing the landscape of edtech through innovation and leadership.” California Computer-Using Educators (CUE) presented Stager with the 2012 Technology in Learning Leadership Award.

Stager was the new media producer for “The Brian Lynch/Eddie Palmieri Project – *Simpatico*,” the 2007 Grammy Award Winner for Best Latin Jazz Album of the Year. He is also a consultant to school architecture firm Fielding Nair International and director of S.T.E.M. at The Oaks School in Los Angeles.

He is a frequent columnist for education-related publications, and writes two blogs, “Stager-to-Go” and “Constructing Modern Knowledge.” His new book is, “*Invent to Learn – Making, Tinkering and Engineering in the Classroom.*”

Stager has a bachelor’s degree in elementary education from William Paterson University of New Jersey and a Ph.D. in science and mathematics education from The University of Melbourne.

Here are his perhaps controversial, and certainly passionate, responses to CASBO’s inquiries.

CSB: *What is the best advice you’ve ever received? From whom?*

Stager: A great old trumpet teacher of mine, Dr. William Fielder said, “Never satisfied, only gratified.” This is sound advice for trumpet players and education leaders.

CSB: *What is the last book you read?*

Stager: I recently re-read a lot of Piaget, Dewey, Froebel, Malaguzzi, Levi-Strauss and Papert in preparation for my new book, “*Invent to Learn - Making, Tinkering and Engineering in the Classroom.*” The two best books I’ve read about education in the past five years are “*Making Learning Whole: How Seven Principles of Teaching Can Transform Education,*” by David Perkins and “*Changing Lives,*” by Tricia Tunstall.

I shared my favorite books for school leaders in *The Huffington Post* at http://www.huffingtonpost.com/gary-stager/wanna-be-a-school-reforme_b_765199.html

CSB: *Name three people, living or dead, with whom you’d like to share a meal. Why?*

Stager: I once told another publication that my heroes were Thomas Edison, Miles Davis, Evel Knievel and Abbie Hoffman.

I’d like to have dinner at Bill Clinton’s house with 87-year-old drummer Roy Haynes, Congressman John Lewis and Gloria Steinem. Nothing pleases me more than spending time with smart people who are experts at what they do. Half of American musical history has been touched by the great Roy Haynes. I admire the courage, heroism and tenacity of John Lewis. I crave

an opportunity to thank him and other champions of liberty, like Gloria Steinem, for all they sacrificed to help our nation live up to its promise.

I have been so fortunate to work with or get to know many of the greatest educators of the past 50 years, including: Seymour Papert, Jonathan Kozol, Deborah Meier, Herbert Kohl, Alfie Kohn, Dennis Littky and Alan Kay. Much of what I know about learning comes from hanging out with world-class jazz musicians.

CSB: *What is currently your favorite app or new tech item?*

Stager: I don’t give much thought to apps. By definition, they are utilitarian in design and function. App is a simple, diminutive term. There is nothing about learning that should be app-like.

I use a handful of apps to perform uniform, predictable functions when I need a tiny bit of information. Software for learning needs to be open-ended, flexible and support creativity. In the best case, a computer is an intellectual laboratory and a vehicle for self-expression.

CSB: *What will the classroom of the future look like? How can school district leaders prepare for that classroom?*

Stager: I’m not a futurist, but I will make one prediction about the future. In the future, schools will no longer enjoy the same monopoly on children’s time. I know I am correct because politicians say the exact opposite when they advocate longer school days and years. That is just the last gasp of a dying bureaucracy.

School itself is a technology, and like all other technologies, has affordances and constraints. School leaders need to determine how and why young people and a teacher should be co-located in the same physical space when more parents work from home, and the Web allows for all sorts of information sharing.

Ironically, the activities that make school most viable in the future – band, choir, drama productions, science experiments, collaborative projects, field trips – are often the first things cut in order to double-down on information delivery and testing.

CSB: *How do American school districts compare to districts in other countries in their use of technology?*

Stager: With the advent of the World Wide Web, our bad education policies infect the world quickly. Regrettably, we seem to learn very little from abroad.

Computers may be used to grant agency to either the system, teacher or learner. My efforts focus on empowering

the learner. Educational computing and progressive education are American inventions placing the learner at the center of the educational enterprise. We have exported our noblest ideas and now prefer technology to test, track and monitor, rather than liberate learners.

School leaders and policy-makers would be well-served by learning about how Costa Rica has spent the past 25 years revolutionizing its educational system and economy by embracing constructionism and computers as creative tools.

CSB: *What can school districts' business offices learn from the private sector as far as innovative use of technology?*

Stager: Not much. Perhaps schools can learn one lesson from the private sector in order to explain how 30 years after computers entered classrooms, we still need to beg, bribe, threaten, coerce and cajole teachers into using one. Limited access, unimaginative vision and low-expectations may explain why teachers are the last group of adults to use a computer.

The best way to ensure that teachers will use computers to their potential is to create scenarios in which they see through the eyes and screens of their students what is possible.

CSB: *You've said in your keynote addresses that "school should work with the tech of the day." Can you explain what you mean by that?*

Stager: Anything a child brings to school in their head, heart or backpack should be viewed as a gift. It's incumbent upon adults to find ways to embrace the world of the child to expand learning opportunities.

The PC changed the world and yet sadly, computers in education seem anything but personal. All of the virtues and qualities of personal computing need to be the top priority of school investments in technology.

While we're on the subject, let's stop calling things "technology." Such semantics imply a false equivalency between pencils, Pez dispensers, computers and a thermos. The revolution is really in computing, the conscious act of making things with computers. Too much of school computer use is passive.

CSB: *You have expertise in working with at-risk learners. What are some ways that technology can help these students, and by extension, that technology can be used to reduce the achievement gap?*

Stager: First of all, if kids continue to make educational progress, we need the humility required to be willing to change everything in shaping their learning environment. The technological experiences at-risk kids need are the exact same ones intended for our most gifted students.

CSB: *Most school districts in California would love to have additional district office and classroom-based technology, and with the implementation of Common Core standards in California, this will be a necessity. Any tips on how they might fund technology updates or programs?*

Stager: The Common Core is a solution in search of a problem created extra-democratically without a single vote by an elected official. It will reduce access to computers by relegating them to their weakest uses for test prep and testing. Schools will make hysterical "security" choices for those computers because of testing that will impede student learning and expression. Such low-level use of computers raises the cost and distracts teachers from using computers to amplify human potential.

My craziest idea is to push for state legislation offering generous tax exemptions for parents to purchase a personal laptop computer for educational use (exceeding clear technical specifications). This will get schools out of the computer business, reduce the number of expensive employees making purchasing decisions and give something of value to parents who may be suspicious of school spending. The poorest children can get laptops through mechanisms like the school lunch program and local foundations. This would also stimulate the California economy and lower computer prices.

CSB: *In his proposed budget, Gov. Jerry Brown has proposed changes in law that would enable school districts to offer asynchronous online courses (not requiring simultaneous participation of students and instructors). Do you see any pitfalls in the governor's proposal, or do you think he is on the right track?*

Stager: There is nothing inherently virtuous or evil about online courses (although good ones are awfully hard to find). When I helped create online degree programs at Pepperdine University more than 15 years ago, the goal was to increase intimacy and access to expertise. I'm concerned by the growth of Massive Open Online Courses (MOOCs). Nothing in education should ever be massive.

Like any use of technology in education, online courses should be used to increase opportunities, not just cut costs. Decades ago, a very wise colleague shared other important advice with me. Sound educational decisions are never made on price. ■■■

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