Why iPads? It’s a question of innovation

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In recent educational history in the United States, no single tool has been as readily and rapidly adopted as Apple’s iPad.

By the end of 2012, Apple reported that it had sold more than 4.5 million iPads directly to educational institutions. At its January Education event in New York City, Apple’s CEO Tim Cook stated, “The adoption rate of the iPad in education is something I’d never seen from any technology product in history.” Such a statement should come as no surprise to anyone that works in schools today and is witnessing the excited practice of buying iPads for classrooms.

In my role as an ed-tech speaker, instructor, and consultant to various schools and districts, I have witnessed a myriad of iPad proposals and programs. I have heard administrators, educators, and parents debate the merits of various apps, discuss how to fund purchases, plan training and professional development...

Overall, they focus on the nuts and bolts of rolling out an iPad program. Their reasons for incorporating the iPad are as varied as the programs themselves: They are eager to stay competitive in the educational market, they are striving to stay relevant as a school or a district, or simply that students and teachers like the product itself. They often point to level of engagement students experience with iPads.

However, the question that administrators and educators rarely address is the most important and fundamental of all: “Why iPads?” How, exactly, does an iPad align with an institution’s vision of authentic and essential learning? How can iPads help prepare students to be effective global citizens?

(Next page: What do schools and students gain when using iPads?)

I would argue that by embracing tools like the iPad, devices that allow students to explore and create, as well as developing a pedagogy and curriculum that encourages ingenuity, we can reinforce a process of learning that crafts innovative, problem-solving, and entrepreneurial minds. If we examine the question “why iPads?” in the context of America’s quest to continue as a leader of innovation, then the question, and the tool, becomes more poignant.

When MIT Economist Frank Levy and Harvard Education Professor Richard Murnane set about analyzing changing workplace skill requirements in the U.S. labor force, and a connection to skill development in school, they determined that success in today’s workplace is not about what you know, but rather your ability to solve complex and unanticipated problems.

Levy and Murnane identified two highest-order competencies most in demand by employers: “expert thinking,” or “the ability to solve new problems that cannot be solved by applying rules” (if the problem could be solved by rules, a computer could do it), and “complex communication,” or the ability “to convey a particular interpretation of information to others.” Murnane and Levy argue that students must develop these skills to stay competitive in the 21st-century labor market. They point out that increasingly powerful technologies have rendered many “routine manual” and “routine cognitive” skills the domain of computers. (Think how robots have replaced humans on assembly lines, and how software can prepare your taxes.)
As such, students will enter the most cognitively demanding labor force in U.S history, and schools need to nurture skills and competencies that give humans an advantage over computers. And what we humans do quite well—and have done for millennia—is adapt to new environments by developing creative and innovative approaches to new problems.

In his pivotal work *Creating Innovators*, Harvard Professor Tony Wagner points out that the Chinese and other global economic competitors are attempting to challenge U.S preeminence in economic innovation, partly by reforming their education system to nurture more creative and entrepreneurial minds. Wagner argues that increased standardization in schools and universities is hindering creativity amongst American youth; it stymies risk-taking by penalizing failure, and thus keeps students from looking at the world in new and unique ways:

"Rarely do entrepreneurs or innovators talk about how their schooling or their places of work—or even their parents—developed their talents or encouraged their aspirations. Three of the most innovative entrepreneurs of the last half century—Edwin Land, the inventor of the Polaroid instant camera; Bill Gates; and Mark Zuckerberg, founder and CEO of Facebook—had to drop out of Harvard to pursue their ideas."

In a growing sea of iPad classrooms, we must recognize that these devices are not merely gadgets for consumption, but rather portable learning and creation devices. A student can work at a desk, in a courtyard, on a bus, or virtually anywhere, and create just about anything. The iPad allows the classroom to exist outside of the school building, or learning to happen anywhere, for that matter. An iPad can be used to examine molecules kinesthetically in 3D (pinch, zoom, etc.), create a video, compose a song, create a multimedia book, and much, much more. The flexibility and portability of these devices can make them a wonderful platform from which students and educators can explore, play, and create.

Nurturing innovative and entrepreneurial minds requires several major shifts. School communities need to agree on their vision for students. They need to develop assessments that measure progress towards creativity, innovation, and collaboration (perhaps to run in parallel to established assessments). Teachers need to come together as a faculty to develop new pedagogies and a new instructional language, as a community, to discuss preparing students for these new goals. And then, nearly every school community that goes through this journey discovers that the pedagogy they want for their students requires ubiquitous access to computing devices, and the iPad can be a compelling option for many schools.

In a sense, the choice of device should come last, logically, in these conversations. But if it’s the opportunity to introduce a new device that sparks these conversations, then so much the better.

The real force behind the “why iPads” question is not really about the tool, but rather about our methodology, vision, and objectives as educators. It provides us the opportunity to really examine what type of students we want to mold. And while I am advocating that the iPad can be an incredibly powerful tool in the realm of creating innovative young minds, I also recognize and readily state that it is likely not the end-all, be-all of education. In this fast-paced world, a new device or even multiple devices could readily replace it.

We need to get out of the mind frame that a single tool can be the answer. If we want to stay the country of innovation and creativity, then we need to ensure that the pedagogical vision of our institutions and the tools we adopt reflect that objective. If we ignore the question, if we avoid the conversation, then we are missing out on the opportunity to truly shape the future of the world in which we live.

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