CHAPTER 13

TECHNOLOGY

Technology is only technology to those born before the technology.

—Alan Kay

In 1978 my children attended St. Mary’s, a K-8 school that didn’t have any computers at the time, so I worked it out with one of the school’s leaders, Sister Nicki, to let me donate a couple of Apple II computers. It turned out that they didn’t have a clue what to do with these computers, as they were still quite rare back then. Eventually, the school’s faculty and staff cleaned out the janitorial closet, put the Apple IIs in there, and announced to the students that they could use them, but only during their
free time. One youngster, lagging badly in his ability to read, discovered a game on the computer that was designed to help kids improve their reading skills. Suddenly reading didn’t feel like a struggle to him; instead, “it felt like a gripping challenge,” he later noted. “Like a video game.” By the time school let out for the summer, he had gotten himself up to his appropriate grade level in reading—by playing that game.

At the end of the school year the graduating eight-grade class at St. Mary’s raised the funds and bought additional Apple IIIs for the incoming class, but that turned out to create a dilemma: there were now too many computers to fit in the closet! To solve this problem, they decided to make computers part of their standard curriculum, and one of the mothers, who worked for IBM at the time, was hired to be in charge of creating the course. Shortly after the curriculum was put in place, Sister Nicki showed me a copy of the first exam. The IBM mom had copied the front page of the computer manual and removed some words. The students were then asked to fill in the missing words. Suddenly, there were no more stories like that of the youngster who taught himself how to read better by playing a fun game.

By shutting the door on the janitor’s closet and using the Apple IIIs as little more than props for traditional learning, the IBM mom, without realizing it, had taken the joy of discovery out of the technology, replacing it with more of the same boring memorization tactics that the students saw day in and day out. All of the benefit that those Apple IIIs brought when they were available for the kids to explore on had now vanished, and the learning took a hit. Seeing what happened at the time was a valuable lesson for me: discovering the incredible power that technology can bring to learning isn’t always obvious. As I once wrote in an article titled
“How Apple Lost its Way to School,” “If we were not careful, our educational institutions will turn Steve Jobs’ vision of the mental bicycle into an exercise cycle: something that’s just boring and takes us nowhere.”

The janitor’s closet is a great story because it highlights the importance of understanding that adding technology to your school, classroom, or curriculum isn’t going to do much in and of itself. What we ultimately do with that technology is just as important as choosing the right technologies to use in the first place. I see three key ways how technology is implemented in the classroom: to make things more efficient, to make things slightly more effective, or to transform the learning experience altogether. Today, technology is primarily used as a means to solve problems related to the first two, but I don’t think that’s good enough. Relying on technology solely as a “tool” to make traditional processes more efficient underestimates its power.

All too often I hear the phrase, “Technology is just a tool!” And while it’s true that technology, especially educational technology, can be used as just a tool, that by no means is the only way that it can, or should, be used. To truly rewire education, we must raise the bar for technology. I made the case in chapter one that digital natives do not see technology as a tool at all, but rather as a natural part of their environment. However, many teachers and parents have yet to understand and/or embrace this. Take for example some of the most common ways we see technology being used in classrooms today: back-end software like databases, electronic grade sheets, wireless connectivity, internet browsing, and printing worksheets. These are perfect examples of technology being used to bolster efficiency—technology acting as a substitute for something that could be done just as well, if not as quickly,