Over the last year, I have visited schools where people think outside the conventions of the acquisition and storage model, and where learning is organized in unconventional ways.

I have visited High Tech High in San Diego, New Tech at Jefferson High School in Los Angeles (closed in 2016), and the Avalon School in St. Paul, where students learn by designing and completing projects. I’ve watched parents tutor their kids who are enrolled in the California Virtual Academy, and seen how they integrate a highly structured curriculum with family life and experiences. I’ve visited the Los Angeles Unified School District’s technology fair and seen students who had been “ganged up” and lost to any form of schooling recreate themselves as designers and graphic artists.

I’ve looked at blended learning—“clicks and bricks”—that bring together technology and face-to-face experiences using Moodle and other software. I’ve looked at games, simulations, apps, and the burgeoning world of open lectures and courses. (MIT now has over 2,000 free courses online, and Carnegie Mellon has invested hugely in smart teaching software.) I’ve visited Scotland, and talked with the people who developed the world’s first national education intranet, Glow, with the capacity of linking every student, classroom, teacher, and family in the country.

Synthesizing these experiences and the rapidly growing research literature on learning, technology, and open education, it is possible to sketch the design of Learning 2.0.

1. **A remix of acquisition and practice in project-based learning;** or as the founders of High Tech High in San Diego call it, the integration of head and hands. Integrating experience and academic standards creates multiple pathways through school without old-fashioned tracking, and it often changes students’ aspirations. Larry Rosenstock, who founded High Tech High, realized that more of the students in his carpentry class were going to college than those in the school’s “academic” track. Learning and doing motivates students, and changes the flows of information.

2. **An individual education plan for everyone.** The official curriculum of most schools leaves large numbers of students either bored or bewildered. Both in the speed at which knowledge is presented and the style of learning experiences, the system needs more variety in type and style of education, not less. Individualization and specialization of learning will allow different mixtures of technical, artistic, and conventionally academic education to co-exist and prosper. New technologies help. The software for handheld devices, such as that developed by Wireless Generation (now defunct), allows teachers to individualize and regroup students while constantly monitoring their progress.

3. **A redefinition of who is the worker in the education system.** Historically, education reform has been built on getting
adults to work harder hoping that this would make kids smarter. Instead, we need to design and build learning experiences that are accessible directly by students and which better motivate them. Given data about standards and expectations and the expanding universe of educational experiences, students are capable of much more self-monitoring and direction than the current system expects or allows.

4. **Unbundle the time spent learning, teaching lessons, and the assessment of competence.** While the current practice of semester-long classes may endure for some time, the system needs to open the capacity for students to learn and be tested in different blocks of time, and to be certified as having learned. If there are productivity gains to be made in education, they will be made largely in shrinking the number of years and months it takes a student to move through high school and higher education and by reducing the necessity for remediation for students who simply needed longer to master a topic.

5. **A redefinition of Basic Skills.** The United States has been obsessed with higher standards in reading, math, and science. But standards and testing are dangerously narrowing learning. Learning to collaborate and to solve ill-defined problems are to the 21st Century what industrial discipline was to the last hundred years, according to those who have studied what employers and society need. Adoption of a common core of standards, to which the California State Board of Education has subscribed, is supposed to address these issues, but the danger remains that these standards—like the existing ones—will produce a longer list of atomized, and thus trivialized, skills.