The Fun They Had  by Isaac Asimov

Margie even wrote about it that night in her diary. On the page headed May 17, 2157, she wrote, "Today, Tommy found a real book!"

It was a very old book. Margie's grandfather once said that when he was a little boy his grandfather told him that there was a time when all stories were printed on paper.

They turned the pages, which were yellow and crinkly, and it was awfully funny to read words that stood still instead of moving the way they were supposed to--on a screen, you know. And then, when they turned back to the page before, it had the same words on it that it had had when they read it the first time.

"Gee," said Tommy, "what a waste. When you're through with the book, you just throw it away, I guess. Our television screen must have had a million books on it and it's good for plenty more. I wouldn't throw it away."

"Same with mine," said Margie. She was eleven and hadn't seen as many telebooks as Tommy had. He was thirteen.

She said, "Where did you find it?"

"In my house." He pointed without looking, because he was busy reading. "In the attic."

"What's it about?"

"School."

Margie was scornful. "School? What's there to write about school? I hate school."

Margie always hated school, but now she hated it more than ever. The mechanical teacher had been giving her test after test in geography and she had been doing worse and worse until her mother had shaken her head sorrowfully and sent for the County Inspector.

He was a round little man with a red face and a whole box of tools with dials and wires. He smiled at Margie and gave her an apple, then took the teacher apart. Margie had hoped he wouldn't know how to put it together again, but he knew how all right, and, after an hour or so, there it was again, large and black and ugly, with a big screen on which all the lessons were shown and the questions were asked. That wasn't so bad. The part Margie hated most was the slot where she had to put homework and test papers. She always had to write them out in a punch code they made her learn when she was six years old, and the mechanical teacher calculated the mark in no time.

The Inspector had smiled after he was finished and patted Margie's head. He said to her mother, "It's not the little girl's fault, Mrs. Jones. I think the geography sector was geared a little too quick. Those things happen sometimes. I've slowed it up to an average ten-year level. Actually, the overall pattern of her progress is quite satisfactory." And he patted Margie's head again.
Margie was disappointed. She had been hoping they would take the teacher away altogether.

They had once taken Tommy's teacher away for nearly a month because the history sector had blanked out completely.

So she said to Tommy, "Why would anyone write about school?"

Tommy looked at her with very superior eyes. "Because it's not our kind of school, stupid. This is the old kind of school that they had hundreds and hundreds of years ago." He added loftily, pronouncing the word carefully, "Centuries ago."

Margie was hurt. "Well, I don't know what kind of school they had all that time ago."

She read the book over his shoulder for a while, then said, "Anyway, they had a teacher."

"Sure they had a teacher, but it wasn't a regular teacher. It was a man."

"A man? How could a man be a teacher?"

"Well, he just told the boys and girls things and gave them homework and asked them questions."

"A man isn't smart enough."

"Sure he is. My father knows as much as my teacher."

"He can't. A man can't know as much as a teacher."

"He knows almost as much, I betcha."

Margie wasn't prepared to dispute that. She said, "I wouldn't want a strange man in my house to teach me."

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They weren't even half-finished when Margie's mother called, "Margie! School!"

Margie looked up. "Not yet, Mamma."

"Now!" said Mrs. Jones. "And it's probably time for Tommy, too."

Margie said to Tommy, "Can I read the book some more with you after school?"

"Maybe," he said nonchalantly. He walked away whistling, the dusty old book tucked beneath his arm.

Margie went into the schoolroom. It was right next to her bedroom, and the mechanical teacher was on and waiting for her. It was always on at the same time every day except Saturday and Sunday, because her mother said little girls learned better if they learned at regular hours.
The screen was lit up, and it said: "Today's arithmetic lesson is on the addition of proper fractions. Please insert yesterday's homework in the proper slot."

Margie did so with a sigh. She was thinking about the old schools they had when her grandfather's grandfather was a little boy. All the kids from the whole neighborhood came, laughing and shouting in the schoolyard, sitting together in the schoolroom, going home together at the end of the day. They learned the same things, so they could help one another on the homework and talk about it.

The mechanical teacher was flashing on the screen: "When we add the fractions $\frac{1}{2}$ and $\frac{1}{4}$..." Margie was thinking about how the kids must have loved it in the old days. She was thinking about the fun they had.

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Personalization Is the Key to Transforming Education

By MARK JOHNSON | April 19, 2018 6:30 AM

The same technologies that customize our purchases and media preferences can help kids learn at their own pace.

The results of the latest National Assessment of Educational Progress, often called “the nation’s report card,” are cause for concern. More than
a generation into the digital age, America’s fourth- and eighth-graders made little to no gains in reading and math. Educators are working hard, and leaders are investing in targeted interventions for students along with engagements for parents. Yet only 37 percent of American fourth-graders have the reading skills they need — and that number is not improving. The key to making everyone’s work and innovation pay off lies in applying the now-familiar technology of our daily lives to teaching our children.

Today’s adaptive technology allows us to personalize our news, shopping, media, and even fast-food orders. We must now employ this innovation in our schools to personalize education for our students. I’m a millennial Teach For America alumnus who was elected in 2016 to lead the public schools in North Carolina. Here I am considered an education reformer. But this technology is more than an “education reform”; it is how we transform education for students, parents, and educators. Every side of the debate should support this transformation to help us break our current performance gridlock.

First, the underpinnings of our education system were designed in the early 20th century with early-20th-century tools to meet the needs of an industrial society. We require teachers to convey standard information from standard textbooks at a standard pace. Students then take a standardized test to prove memorization of standard facts. Regardless of whether each student shows mastery or fails, the entire class proceeds to the next standard.

The system works for some students, but many others start off behind or fall behind and never catch up. Some students find the material too easy and are never fully challenged. Meanwhile, most educators would probably rather devote their time to addressing the individual needs of their students and helping them develop critical thinking, but they must teach to end-of-year tests that are not able to inform their instruction during the school year.
With the new adaptive technology, teachers, students, and parents no longer have to tolerate this model. The appropriate use of this innovation in the classroom, known as “personalized learning,” is as a tool enabling educators to better help all students while reducing the burdens that traditional methods placed on their profession.

In personalized learning, students work at their own pace and advance when they have mastered a concept. Personalized learning also benefits teachers, who, as instructional leaders, gain access to immediately available information on student progress, replacing binders of paperwork and grading. They can better guide all students toward critical thinking instead of test-question memorization. We can reemphasize history, science, and arts as our young children learn to read. Also, screen time is limited. Students alternate between the adaptive technology, books, paper-and-pencil, and small-group work with one another and the teacher. Most important, personalized learning empowers students and educators. Teachers know each student’s needs better and can help every student maximize every moment of every class. Each student creates his or her own roadmap to mastery.

Whether pursuing a career as a welder, doctor, or anything in between, students must learn critical-thinking skills and collaboration so that technological disruptions don’t outpace their ability to adapt.

During a recent visit to a digital-age classroom in North Carolina, one student showed me her individual learning plan with pride. In less than a year, she rose two grade levels to catch up with her peers. A different student showed me how she excelled a grade level ahead of her peers. The adaptive content engages students by activating their interests and aspirations at a pace that works for them.

Our education system must give every student an equal opportunity to work hard
and succeed. No matter their background or zip code, students should be able to reach their American Dream. The standard notion that only students who go to college can succeed needs to be replaced by personalized options for students, such as apprenticeships, technical certifications, associate degrees, military service, or a four-year college if they so choose. Whether pursuing a career as a welder, doctor, plumber, lawyer, soldier, teacher, farmer, coder, or anything in between, students must learn critical-thinking skills and collaboration so that future technological disruptions don’t outpace their ability to adapt. This is an “education transformation” we can all get behind.

MARK JOHNSON — Mark Johnson is North Carolina’s state superintendent.