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## HOME SCHOOLING

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### Special Ed

#### *Factory-Like Schooling May Soon Be a Thing of the Past*

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This selection first appeared in *Reason* magazine's July 1996 edition. Britton Manasco is founder and executive director of the high-tech consulting firm Quantum Era Enterprises. He also is editor and publisher of *Knowledge, Inc.*, an executive newsletter exploring business opportunities in the emerging knowledge economy.

*School days, I believe, are the unhappiest in the whole span of human existence. They are full of dull, unintelligible tasks, new and unpleasant ordinances, brutal violations of common sense and common decency.—H.L. Mencken*

At 16, Paul Boone writes articles reviewing new computer games for *Mac Home Journal* and aspires to launch a game development company of his own. Such ambitions are not that uncommon in his hometown of San Jose, California, the heart of Silicon Valley. What is unusual is how easily he has been able to incorporate his interest in computers into his education—and why.

Paul, his sister Cristie, 17, and brother Curtis, 12, have been educated at home, by parents who are convinced that children learn best when they are free to explore areas of interest in an independent, self-directed way. When the kids were younger, their mother, Jill, spent a great deal of time reading with them and actively encouraging their learning. Now, she explains, they all engage in independent learning activities. Cristie is most interested in the study of literature and takes

courses at a local community college. Curtis is interested in ancient history and attends a weekly community college class in art history with his mother. Paul has developed his programming skills through books, on-line discussions, and constant experimentation. He recently got press credentials for a game developers' conference, allowing him to rub elbows with people who may someday be his colleagues. "All the companies are looking for 'self-motivated' people," he notes, and his education has developed that quality.

Jill explains that she supports her children's particular interests while creatively encouraging them to study important subjects that don't initially attract them. To get Cristie interested in studying science, for instance, Jill found literary treatments of astronomy for her to read. "I'm more of a guide or facilitator than a teacher," she says. "I help my kids research topics and find materials. I help them find opportunities and ensure that they get a well-balanced education."

Across the country, in the Washington suburb of Waldorf, Maryland, Marilyn and Chesley Rockett's two youngest sons have followed a more structured curriculum—but a similar philosophy. Marilyn argues that children can learn much more effectively when their learning experiences are not confined to textbooks, classrooms, and grade levels. "The emphasis has always been on learning rather than simply moving on," she says of the education she's given Jeremy, 17, and Jonathan, 19, at home. (Jonathan attends Hillsdale College in Michigan; his younger brother will join him there in the fall.) When the boys began to study American history, Marilyn sought out books at the local library exploring the impact of American artists, scientists, and political leaders. She and her husband took the boys on an excursion to Valley Forge, Pennsylvania, and had them write up their experiences. While studying the Civil War, she went with them to Ford's Theater and the house of Samuel Mudd, the doctor who treated John Wilkes Booth after he shot Lincoln. This interdisciplinary approach, she says, has helped her children "see the connections" among the many forces that influenced the nation's development.

The two families certainly have their differences. While the Rocketts are evangelical Christians and consider religious instruction a vital aspect of home learning, the Boones shun organized religion and encourage their children to follow their own spiritual paths. The Rocketts have used various commercially available pre-packaged curricula, which they then tailor to their own situation. The Boones have taken a

less-structured approach, largely allowing their children to focus on the subjects they find most inspiring (while gently prodding the kids to ensure a breadth of coverage).

Both families agree, however, that most private and government-run schools are incapable of supporting the individual learning needs of their children. Both contend that the “socialization” that occurs in schools is generally inimical to learning and personal growth. Both consider home schooling a way of strengthening the bonds of the family. And both the Rocketts and the Boones make a distinction between learning—which is ongoing and boundless—and institutional education, which is tied to a specific time and place. “Living is learning,” wrote John Holt, the late author of the classic books *How Children Fail* and *How Children Learn* and an early champion of the home schooling movement (which he preferred to call “unschooling”). “It is impossible to be alive and conscious . . . without constantly learning things.” Although not all home schoolers are admirers of Holt (some of his more conservative critics consider him a “child worshiper”), most share his belief that learning is something that occurs “all the time.”

It is just this sort of thinking—a concern for independent thought, a longing to strengthen the family, and a frustration with the bureaucratic limits of conventional schools—that is leading the home school movement into the mainstream. Home schoolers are a statistically small but rapidly growing and increasingly influential force in America. Their numbers have jumped from 15,000 to 20,000 in the late 1970s to perhaps 600,000 today (some estimates put the number above 1 million). The trend is likely to continue, as new products and institutions develop that make it easier for parents to educate children at home.

Particularly intriguing are the trend’s potential ripple effects. While it’s difficult to imagine a mass exodus from traditional schools in the near term, the home school movement may help create a future in which families have an extraordinary number of choices to educate their children. The movement has shown that children do not need formal institutions to learn and thrive. While standardized test scores of home schoolers are open to charges of statistical bias (due to the near impossibility of obtaining a random sample), Pat Lines, senior research analyst at the U.S. Department of Education, says surveys of state examinations demonstrate that such children “consistently test above national norms.”

Home schoolers also provide an inspiration, and a growing market, for a variety of institutions, products, and services that offer individual-

ized learning. Education still tends to be structured around a basic economy of scale: It's a lot cheaper to have one teacher lecture to a large class in a structured way, and at the same time and place, than to tutor students one on one. New technologies allow education to be unbundled. Lectures can be recorded and transmitted to, or videotaped for, anyone, anywhere, any time. Educational software programs allow students to work at their own pace, getting instant feedback on their work. CD-ROMs can make important books compact, inexpensive, and interactive. Internet services and educational networks allow scattered students access to specialized expertise.

Sheldon Richman, author of *Separating School and State*, believes that the growth in home schooling represents "demand-side entrepreneurship," which he argues would flourish if decentralized learning policies were adopted. Instead of depending on schools, Richman says, parents would be encouraged to ask themselves, "What educational opportunities can I take advantage of for the benefit of my child?" The instructional expertise, group interactions, and custodial care schools offer would continue to be valued. But families would no longer rely on such services exclusively, and children would engage in a mix of learning experiences, some at home, some not.

Such unbundling, which allows for both structured and unstructured learning, gets education away from the idea that learning is best provided in a setting that has much in common with a rigidly structured 19th-century factory. "Schooling," notes Howard Gardner of the Harvard Graduate School of Education, is a mass-oriented phenomenon based on a "uniform idea": "You teach the same thing to students in the same way and assess them all in the same way."

The home school movement suggests that educational choices need not be limited to public and private schools. Rather, parents can create far more flexible arrangements, relying on an array of learning services, resources, and technologies that enable their children to learn at home on a part-time or full-time basis. We can begin contemplating a future of learning opportunities analogous to the innovation and decentralization that is currently taking place in traditional workplaces.

"There's been a huge change in the way people think about education," says Diane Ravitch, a senior scholar at New York University and former head of research in the U.S. Department of Education. "Under the old paradigm, there was only one means—the government school system. The ends—well-educated students—varied wildly." Now, she

argues the public appears increasingly willing to allow the means to vary if the ends are kept constant. She notes that more than 250 charter schools, which reduce restrictions and red tape, have been created in taxpayer-financed systems throughout the country and points optimistically to school voucher efforts in Milwaukee and other cities.

If Ravitch is right that people are beginning to stress educational ends over means, it is quite possible that the taste for experimentation and innovation in education will embrace more meaningfully the notion of individualized learning. A number of proposals have been put forward that explicitly seek to shift funding from institutions to learning opportunities for individuals. Over \$300 billion—that's the amount spent on K–12 education annually—is at stake.

One idea, advocated by David Barulich, a Los Angeles-based education policy consultant, would provide “performance grants” directly to parents. The grants, which would be linked to annual examinations and available to any family whose child or children did not attend public school, would allow the family to actively choose the learning services it finds most suitable. Those might include traditional private schooling, specialized tutoring, on-line services, community college classes, or any other combination of formal and informal education. Lewis Perelman, author of *School's Out*, also argues that families should be directly funded and supports what he calls “microvouchers,” based on family income, that can be used to buy educational services. Still another plan, conceived by Sharlene Holt of Middletown, Pennsylvania-based ESANet, champions “educational savings accounts.” Like the medical savings accounts now bandied about in Congress, ESAs would provide a series of tax incentives that would enable parents to deduct money from their total tax liability for each child who does not attend a public school.

Such efforts have never been more crucial or, given new technologies, more possible. We are entering a new economic era that stresses entrepreneurship at all levels and places a premium on the ability to continuously upgrade knowledge and skills. If individuals are to prosper in this turbulent era, they must, first and foremost, learn how to learn—how to actively acquire new skills as their existing ones lose value. The new economy rewards passion, agility, creativity, initiative, and independent thinking—qualities that today's schools and classrooms often discourage.

On the surface such sentiments jibe exceedingly well with the proclamations of “reformers” in the educational establishment. The Clinton administration advocates “lifelong learning” and has devoted a great

deal of energy to wiring schools to telecommunications networks. The president has vowed to connect every classroom and library in the country to the “information superhighway” by the year 2000, allowing him to pose as an agent of change even as he leaves the fundamental educational structure in place.

But experience suggests no reason to assume government schools will adopt more flexible learning arrangements or implement new technologies any time soon, much less integrate them successfully into the learning process. “It took 30 years to get the overhead projector out of the bowling alley and into the classroom,” says Roger Schank, director of the Institute for the Learning Sciences at Northwestern University. “Schools don’t change.”

While Schank believes it is important to set clear goals and objectives for teachers and students alike, he thinks schools leave too little room for “exploratory” learning. Rather, teachers are urged to “cover” a vast amount of material, and keep the entire class moving in lockstep. Children, as Schank sees it, are on “an intellectual chain gang,” sentenced to dull, monotonous labor that does little to encourage enthusiasm for education. Schank doesn’t think most parents are up to the demands of home schooling and, in fact, he believes the government should create and fund a national K–12 curriculum. But he embraces technological advances that allow for highly individualized learning. He is, for instance, particularly keen on software programs that allow children to create and explore simulated worlds.

Harvard’s Gardner similarly stresses the limitations of traditional notions of education. Because schools tend to treat all students in a uniform manner, they are largely incapable of supporting and enhancing the particular skills, abilities, and talents of individuals. In groundbreaking cognitive research over the past two decades, Gardner posits a theory of “multiple human intelligences”: linguistic, logical-mathematical, spatial representation, musical, bodily-kinesthetic, the understanding of other individuals, and the understanding of ourselves. He explains that the central educational implication of his theory is that “different styles and profiles of intelligence” cannot be addressed without individualizing the learning process. “This is a new, indeed revolutionary, idea for most persons,” he says.

Gardner sees an ally in new technologies. “Technology makes it possible to individualize education,” he says. “If we know that someone is strong in language skills or weak in spatial abilities, we can deliver

information to them in appropriate ways and also give them viable means of responding. This is the genius of the new flexible, interactive technologies.”

The classroom, strictly speaking, is itself a technology. As currently used, however, it is ill-suited to the needs of the individual student. For the most part, personal tutoring is simply not economically or logistically feasible. New information technologies, however, make it possible for students to learn at their own pace and in their own way, with the teacher serving as a mentor and an intellectual coach—guiding, supporting, and questioning individual learners.

Such opportunities can be expected to proliferate as communication costs fall and network capacity expands. Within the coming decade, desktop videoconferencing technologies will enable students to see and speak with experts all over the country rather than rely on a single teacher. And the volume and quality of resources that are accessible online will continue to grow. Such technologies allow students to venture far beyond the confines of a classroom, escaping the boundaries of geography. They decentralize learning, no longer tying it to the physical infrastructure and administrative overhead of schools. Already, telephone companies, cable operators, satellite communications providers, and other innovative companies are investing heavily to create high-performance communication links throughout the nation and globe.

Even that traditional tool of individualized instruction, the book, is becoming cheaper, more compact, and enhanced by new technologies. Software companies such as Microsoft, Grolier, and Compton’s are squeezing voluminous multimedia encyclopedias onto a single disc. Another software firm, Corel, has developed a “classic books” program that incorporates more than 3,500 unabridged literary works, detailed profiles of their authors, video clips, and hundreds of illustrations. Inventive math, science, reading, arts, and foreign language programs are also on the market. Multimedia programs are now available that explore everything from human anatomy to global geography to Renaissance art in compelling detail. Users click on icons to hear stories, view clips, and discover interrelated facts. Many programs are linked to sites on the World Wide Web, which is also proving to be a dynamic medium for new learning resources.

At the same time, the continuing evolution of the Internet has made it possible to offer a range of courses and learning services online. Despite the limitations of the medium, instructors are able to address

the individual learning needs of the child in a way that is not possible in classrooms. Clonlara School, a privately run learning program based in Ann Arbor, Michigan, provides support, resources, and evaluation services for more than 5,000 students throughout the United States, Canada, and a few other countries.

Marketed as an alternative to public schools, Clonlara helps parents receive any necessary approvals from local school authorities for home schooling. It also runs a “campus school” for about 50 students in the Ann Arbor area. Founded in 1967, Clonlara went online in 1994 and has recently introduced a program called “adults graduating,” designed for people over 20 years old who never graduated high school. The school charges annual tuition of \$475 per family (textbooks and supplies are extra), offers a curriculum list that individuals tailor to their needs, and provides report cards, transcripts, and diplomas “where desired and appropriate.” Clonlara “mentors” facilitate ongoing discussions and guide students to available materials for K–12 courses in algebra, physics, science, geography, government, and other subjects. The secondary school curriculum requires 300 hours of volunteer community service, and Clonlara boasts graduates who have gone on to “four year universities, community and junior colleges, computer schools, trade schools, apprenticeships,” and the Armed Forces.

Another on-line learning service, Scholars’ Online Academy, was recently launched from Baton Rouge, Louisiana. Instructors and students, however, are located all over the country. Scholars’ Online stresses college prep and offers a core curriculum similar to that of a traditional private school. The course of study is designed to meet the general education prerequisites of Louisiana State University.

Students interact through e-mail, newsgroups, list servers, and chat sessions (instructors hold on-line “office hours,” too). Annual tuition is based on the number of courses per family, ranging from \$250 for one course to \$1,120 for eight courses. Students, says informational material, “are free to integrate our courses with those of other curriculum providers,” or take courses to prepare for advanced placement tests. Instructors record grades and expect timely completion of assignments, but much of the course preparation and achievement depends on the self-paced study of the individual student (and much of the actual learning takes place offline). Scholars’ Online offers extracurricular activities such as *Hereditas*, a journal designed to give students experience in writing and desktop publishing. It also encourages participation in

the Junior Classical League, a worldwide youth group that arranges competition in categories ranging from ancient Greek and Latin to photography and doll making.

Just as new technologies have enhanced the productivity of work, they appear to be doing the same for home schooling. “Learning technologies have made home schooling a lot easier and a lot more fun,” says Mary Pride, publisher of *Practical Homeschooling* and *Homeschool PC* magazines. She home schools her nine children (ages 2 to 16) using a mix of high-tech resources, programs, and services.

The new resources “have made a lot of difference in terms of what the children have been exposed to and have had a chance to see and learn,” she says, noting that her kids are now taking courses from online tutors and using software programs to do everything from creating a newsletter to learning to play the piano. Her family is on the leading edge of an expanding market. Hal Clarke Inc., a publishing and market research firm in Boulder, Colorado, estimates that home schoolers spend about \$1,500 a year on books, software, videos, and other educational materials. “What is emerging is a more consumer-oriented home school family that wants more help, more conveniences, more books, and more software, and is willing to purchase what is needed,” according to the *Education Industry Report*.

Critics of individualized learning—and home schooling—stress schools’ role in developing social skills such as cooperation, collaboration, and communication. “One of the principal functions of school is to teach children how to behave in groups,” writes NYU professor Neil Postman in the journal *Technos*. “School has never been about individualizing learning. It has always been about how to learn and how to behave as part of a community.”

Such comments are misdirected: No one is arguing that technology be employed to the exclusion of human contact and personal warmth. Individualized learning hardly implies learning in isolation. Communications technologies and networks can enlarge one’s set of possible associations and even allow for collaborative learning projects that cannot be replicated in the classroom. In a proper setting, they can help facilitate both individual *and* interpersonal skills.

And the “community” of the traditional school, like the community of the assembly line, is not necessarily something to be celebrated. It often includes bullying, contempt for learning, and rigid conformity. The tedium and monotony of institutionalized education is more than many—

perhaps, most—children can bear. As Tracy Kidder writes in *Among Schoolchildren*, “It is as if a secret committee, now lost to history, has made a study of children and, having figured out what the greatest number were least disposed to do, declared that all of them should do it.” Kids enter school bursting with energy and enthusiasm. Such fires, however, are often extinguished by a regimen that offers no real outlet for them.

In fact, recent surveys reveal a staggering amount of apathy and ennui among adolescents. In his new book *Beyond the Classroom*, Temple University psychology professor Laurence Steinberg presents the results of a three-year longitudinal study involving 20,000 students in nine high schools in California and Wisconsin. He found that an enormous number of students are “disengaged”—that is, listless and jaded “toward education and its importance to their future success or personal development.” Writes Steinberg, “between one-third and 40 percent of students say that when they are in class, they are neither trying very hard nor paying attention.”

It’s also worth noting that the number of children given Ritalin treatments in school for alleged cases of attention deficit disorder exceeds 1 million, a 250 percent increase since 1990. One wonders if ADD is not in some way built into traditional school models. While such developments cannot be blamed squarely on the schools, they are no doubt a big part of the problem.

Similarly, the case against learning technologies is weak, especially when all firsthand experience suggests that such technologies can stimulate interest and bring abstract concepts to life in a way that traditional pedagogical techniques cannot. Like critics of individualized learning, opponents of emerging technologies are locked into an either/or mindset. For instance, in *Silicon Snake Oil*, Clifford Stoll, an astronomy professor at the University of California at Berkeley, argues that today’s technologies are a poor substitute for real experience. “Every hour that you’re behind the keyboard is sixty minutes that you’re not doing something else,” he says.

Stoll’s math is flawless, but his reasoning is off the mark. Current learning technologies certainly have significant limitations, but they also can provide an excellent alternative to classroom lectures and other school activities that fail to enliven young minds. They are powerful tools that can extend our range of experience and enhance our faculties of learning, just as new technologies enhance our work. Most important, one doesn’t have to choose between, say, a multimedia software

program about ancient forests and, as Stoll prefers, “a quiet meditation among thousand-year-old redwoods”: One can do both.

Indeed, this sense of expansive opportunity is something that families involved in home schooling already understand. They are not merely trading in one set of limited options for another. Far from creating antisocial computer geeks, individualized learning has helped make children active, involved members of their communities.

Jeremy and Jonathan Rockett, for instance, both joined the International Thespian Society and have performed in plays under its auspices. They’ve also participated in sports leagues and tournaments put together by home school support organizations. Volunteer work—tutoring young children in Washington, D.C., and delivering books from the local library to homebound adults—has been an important part of the learning process too. While home school parents often are accused of sheltering their children from cultural diversity, Marilyn Rockett argues that her own family’s experiences speak to the contrary. “It’s life that’s diverse,” she says. “Not a closed classroom.”

The Boones are similarly engaged in social and community activities. They too are active volunteers at their library. They are also involved in several informal learning groups. Curtis, Paul, and Cristie all participate in a sign language class and a creative writing club held in their home. Such gatherings bring together numerous children—and debunk the myth that one needs a conventional school to learn how to interact with others. “People don’t question whether you can get a good education through home schooling,” points out Jill Boone. “But they do raise questions about socialization.” One thing the Boone children say they are often asked is, “How did you learn to stand in line?” It’s a telling question.

The experience of such families underscores an important point: Families do have choices. Whether or not political efforts to encourage taxpayer-funded alternatives to government-run schools ultimately succeed, families already have the option of withdrawing from the educational system. (Many home schoolers oppose tax-funded schemes, which may entail greater regulation.) As leaving or supplementing traditional schooling becomes more attractive and less costly, the egalitarian ideology and assembly-line pedagogy that dictate one-size-fits-all education cannot remain unchanged.