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Interview with Lewis J. Perelman

By Mardell Jefferson Raney

Lewis Perelman, president of Kanbrain Institute, is a rare blend of scholar, visionary, and pragmatist. An outspoken critic of both education and reform, Perelman is convinced that education as we know it is obsolete and irrelevant in today's world and workplace. Perelman is the executive editor of Knowledge Inc., and director of Project Learning 2001, a study of restructuring education and training sponsored by 12 U.S. corporations and foundations concerned with finding ways to meet conditions listed in Workforce 2000. Perelman's first book, The Global Mind (Mason/Charter, 1976), named one of the year's best scientific-technical books by Library Journals; anticipated the impact of the global Internet and World Wide Web. He is the author of the best-selling School's Out: Hyperlearning, the New Technology, and the End of Education (Avon Books, 1993), based in part on his work as a senior research fellow at the Hudson Institute, where he served from 1982 and worked on the Workforce 2000 Project sponsored by the U.S. Department of Labor. Perelman has written articles for Business Week, Forbes, Wired, and The Wall Street Journal.

Five years ago, your bombshell book School's Out was published. How has it held up?
The basic argument—that academia is an obsolete institution in the emerging knowledge-age economy—is solid. Some of the technical details have become dated, of course. I used George Gilder's term *telecom* but did not explicitly mention the Internet, and the Web was essentially unknown at the time I was writing. I also noted that the Japanese were pushing the advancement of robotics to cope with Japan's acute labor shortage; subsequently the Japanese economy fell into an ongoing slump that has greatly increased unemployment and dislocation and eased that particular pressure. And much of the book's policy discussion reflects the fables of the Bush administration. I had intended to mention Bill Clinton was the most active Democrat collaborator in those erroneous policies, but that was one of those revisions that never made it past the publisher's deadline. Overall, though, I think my argument was perhaps too cautious. The policy prescription could have stated an even stronger case for privatization. Also, the trends toward the growth of the hyperlearning environment and the displacement of academia have moved along farther and faster than what I suggested then.

In what way?
Well, the whole Web thing has been amazingly dynamic, even to those of us who thought we were ahead of the curve. And, of course, this is still only the beginning. But it continually strikes me how rapidly people in general have absorbed the normal features of their world what is really a radical transformation of communication, commerce, and ultimately culture. For instance, I gave a speech a couple of years ago to a Chamber of Commerce conference on school reform in Columbus, Ohio. The night before, I was taking a stroll to relax and I noticed how the corner of the central square a huge billboard on top of the high-rise office tower of Huntington Bank. The only thing written on it was "http://www.huntington.com." The next day I asked the audience of 400 or so people how many knew what that meant, and essentially every hand went up. Then I asked how many would have understood such a year earlier and only a few hands went up. Finally, I asked how many people there could identify Tim Berners-Lee.

The inventor of the World Wide Web.
Right. Only one person in the hall knew that.
But you said it was a school reform conference. Why would you expect that audience to be aware of his name?
I didn't. That was my point. The meeting was planned to give attention to supposedly important achievements in schools and education. But Tim Berners-Lee has done more to transform the world of learning, knowledge, and work than all the supposed "big name" heroes, experts, and champions. This is just one example of the point I tried to make in my book: that the forces that are changing academia in the direction of obsolescence and ultimate extinction are almost completely unrelated to any-emerg or anyone found in education policy or education reform.

But many people seem to view you as a reformer, maybe even a radical reformer.
That's one of the main frustrations and disappointments I have about the whole process related to the book. I wrote it mainly for a business audience, to explain how technology is spawning a new relationship between work and learning in a knowledge-based economy. Of course this transformation has sweeping implications for human resources, business processes, management, investment, and ultimately policy—but most dramatic of which may be the obsolescence of an education sector that currently absorbs over \$600 billion of the U.S. economy. I'm often invited to speak to groups concerned with reform of education or training. But I always take pains at the outset to emphasize that I am not a reformer; that is, someone who thinks that education worked great in 1953, and "your people" (whatever) have ruined it up, and I'm here to fix things.

Actually, I recall you said in the beginning of School's Out that you thought the U.S. has the best education system in the world.
I still do. And overall our education system is doing a better job than ever, given what we want and expect and what we value. The problem is not that educators are doing a worse job than ever before—it's that most of them are still doing the same job. The vastly different technological and economic fabric of the 21st century eventually will lead most people to want, expect, and value something else, leaving academia with only a tiny demand and constituency.

Certainly our established systems today are still far from your hyperlearning model. But do you really feel that genuine reform is impossible, that we must abolish education and completely start over?
Yes and no. I'm not only not a reformer, I have no interest in reform; and, when asked, I discourage others from wasting time and money on it. Education reform over a period of decades has proven to be either unnecessary, futile, irrelevant, or even downright harmful. But the press and others often leap from that to the simplistic conclusion that I advocate abolishing schools and education.

But haven't you implied that?
Not at all, ever. I've analyzed and forecasted trends that, I am increasingly confident, will lead eventually to the collapse of the academic system in a way and for reasons that are basically the same as those that brought the collapse of the Soviet system. That's a good thing. The book I wrote, *School's Out*, was published, basically the same view of academic obsolescence has been echoed by a growing cadre of opinion leaders: Arthur C. Clarke, Peter Drucker, Seymour Papert, Stan Davis, John Seeley Brown, Roger Schank, and Susan Branson. *School's Out* is in the Wall Street Journal and Financial Times, the publishers of *Wired*, and others.

A lot of educators and those called reformers think, to the extent you may be right, that that's a real loss, a serious failure. They must be confused when you say that our education system is better than ever and the best in the world but, on the other hand, it's doomed to collapse. And moreover that you seem to welcome that as progress.
It's not a matter of failure or blame. Reformers are obsessed with better or best. They don't recognize that those notions don't mean much when you are dealing with major global system changes. There's a story from modern industrial history that I have found helps to get these distinctions across. In 1952, the U.S. government decided that this country needed to have the best, biggest, and fastest transatlantic steamships. I also noted that the British ownership of knowledge, learning, and technology had proven to be invaluable strategic assets as troop carriers during World War II. So the government had Newport News shipyards build and launch the SS *United States*. On its maiden voyage, the SS *United States* set a record for the fastest transatlantic crossing in a little less than a week. It was named a third fastest after the record set by the *Queen Mary*. But in that same year, a British airline introduced the first jet passenger plane, the de Havilland Comet, which, within a couple of years, was carrying people across the Atlantic in under six hours. The SS *United States* lost money every time it sailed, and it finally was scrapped for 30–40 years of service, was bankrupt in 12 years and spent the next quarter century rusting away at a pier in Turkey.

So you're saying that because hyperlearning is as superior to classroom education as the jet was to the steamship, academia is doomed to be driven out of business. But many educators and analysts argue that multimedia, distance learning, and all that really are no better for education than the traditional classroom. Todd Oppenheimer, for instance, made that case in a recent article in The Atlantic Monthly (July 1997).
Yes, and the point of the SS *United States* story is that such arguments over better and best are largely irrelevant in such a rapidly changing world. The SS *United States* was a waste of money. Whether your education matters little if what people need and want is something else. To see that, first note, particularly in regard to foolishness like national education goals, that the SS *United States* fully achieved the government's national goal of building the best transport ship of its kind in history, in the world.

But the "best" wasn't really good enough.
It was plenty good enough. It just was the wrong "best." There is no way you can say the Newport News shipbuilders failed. They were the best in the world and they built the best ship in the world. They didn't need to be reorganized or retrained or any of the usual reformer's prescriptions. It was the speed of a transport ship from around 30 knots to over 40 knots—a huge improvement. But there was no way then or now to get a ship to go 500 knots.

Then, the jet was a much faster form of transport. But many people still like to travel by ship: in fact it's becoming more and more popular. Yet you claim that hyperlearning spells the end of education. Most people feel that digital media can't match the quality of the classroom experience.
I'll confess that the "end" or extinction of education is a bit of an overstatement. It would be more accurate to say the end as an important economic or social phenomenon, a collapse to triviality. In any case, that word experience holds the reason why "better" is too fuzzy a notion to be relevant to a major system transformation. Is it "better" to travel by plane or by ship? The right answer is: it depends. If you have to get from New York to Paris by tomorrow to sign a contract or a treaty, then it's not a question of better. It's no contest: the plane is the only real option. However, if you want to enjoy the experience of the first ship's amenities—restaurants, swimming pools, nightclubs, sea breezes, and romantic sunsets—again, there's really no contest.

So why can't hyperlearning and schooling just coexist?
Because in the ecology of an economic system, one technology can have competitive and market effects on another that make one unsustainable, or that require such drastic reengineering that what results is really a replacement more than a revision of what was obsolete. In the economy of the great transatlantic steamships, the first-class image of the public and historic image of those vessels was in fact subsidized by the fares of the steerage passengers—literally, the "tudded masses" (celebrated by the Statue of Liberty—who simply wanted to get from one side of the ocean to the other, as cheaply and quickly as possible. Steerage was also subsidized by national governments. Once those steerage passengers were siphoned out of the steaming market by the airplane, there weren't enough passengers who mainly wanted the "experience" of ship travel to pay the full cost of providing it. The benefits could no longer justify the operating and government subsidies either. That's why the SS *United States* was a bust from the start. As for today's booming cruise ship industry, it's really a mistake to view that as an heir to or continuation of the pre-World War II ocean liner industry. The casual observer might assume that a ship is a ship and that ships are a media of transportation. But a state-of-the-art cruise ship like the Carnival lines' 103,000-ton *Destiny* that now plies the Caribbean is not really in the transportation business.

Should we categorize them more as entertainment, then?
Destiny is about three times bigger than the SS *United States* and architecturally has far more in common with Las Vegas than with the SS *United States*. It's not profitable because it doesn't waste money on fuel-guzzling engines and an iceberg-fending hull. Its passengers aren't in a hurry to go anywhere—in fact, they aren't trying to get anywhere.

Your implication seems to be that hyperlearning will take away much of the economic base of education; but on the other hand, education may be able to reinvent itself as the cruise ship business did.
That's roughly right. But the analogy has some crucial limitations. You didn't have the great majority of the U.S. population compelled by a combination of law, constitutional edicts, and endemic workplace discrimination to spend 12 to 20 years of their lives incarcerated in ocean liners. If you had, the development of the first-class industry would have been severely retarded, because passengers would not have been as free to choose a new system that worked much better to meet their needs. The financial and human capital needed to grow the aviation industry would have been expropriated to be wasted on obsolete shipping. The result would have been a number of people dependent on the compulsory ocean travel boondoggle would have formed a demagogic lobby to oppose the deregulation and privatization policies needed to break that logjam.

What do you mean by a "democratic" lobby?
The term reeks of hospital wards rather than committee rooms. But that is author Jonathan Rauch's point: that it is a disease of democracy, government, and nations that all but cripples national policymaking. In a sense, it's policy-work-speak for a new interpretation of gridlock. Fortunately, though, there's probably more kick left in angry U.S. voters than either scholars or Washington lobbyists believe.

So that is your view of the current economy of education?
It's a thumbnail sketch of any socialist system, including education.
You continually equate education with socialism. Isn't that too inflammatory?
There's nothing personal about that. I'm just trying to be accurate. Over 90 percent of the U.S. education economy is owned, controlled, funded, subsidized, or regulated by government. In most countries, it's more like 100 percent. If that is not socialism, then the term has no meaning.

And you see no way to change it?
Oh, change is inevitable. The last century of history shows that such socialist economies are bound to drive themselves to bankruptcy. But the pattern of change is different from and far more costly than that of government. The most serious aspects of government, regulation, and control are to slow down, delay, and deny the gain from technological and industrial innovation. The greater the scope and duration of government control, the bigger the cost of privatization, deregulation, and demopolization. The people who most oppose government control are those who are most dependent on the government's opening—because they've been deprived of the opportunity to learn their knowledge, skills, technology, and ventures to real market conditions.

But even if government should stop owning or providing educational services, isn't there still a need to set goals or standards for what people need to learn? Why do you dismiss that as foolishness?
Because political, bureaucratic processes are as incapable of knowing the what of learning as they are the how. Even more so when they are presuming to extrapolate, to project what know-how people are going to need in the future. The standards of knowledge and know-how are set by the interplay of culture and markets. Any effort by government to decipher and then mandate those things can only introduce debilitating distortions. I would not tolerate Al Gore—or for that matter New Gingrich—deciding what stocks you have to own to meet your financial investment goals over the next 20 years. Yet you are supposed to trust his list to decide what knowledge assets you or your kids are supposed to invest in over seriously want. Pascal's wager has as much logic as instituting cow writing in the stock market as the future stock market.

Then why did more than 200 Silicon Valley chief executives endorse the Clinton administration's education goals program earlier this year?
I can answer that in two words: Bill Lerach. He's the lawyer who has tormented high-tech companies with shareholder lawsuits whenever their performance falls short of expectations. When Clinton turned out to be, shall we say, ambivalent to the support of the California Proposition 211 campaign to let venture capitalist John Doerr and that group to protect themselves against Lerach and his fellow jackals, the Doerr bunch decided they needed to play the political games they traditionally found boring and irrelevant. So, to outdo Clinton and to buy Doerr's support, they went on key industry goals in areas such as encryption. They chose to squint a little PR oil on his education goals hookam.

Do you really believe they are that cynical?
Oh, I suppose more than a few of that group are sincere, for what that's worth. But I doubt if any of them have ever given any education issue more than a few minutes of critical thought. If that much, in any case, there's no reason to assume that at any given moment the current CEOs of the supposedly major high-tech companies necessarily have a clue as to what the real best interests of their companies are. Just ask the employees and stockholders of Apple, Digital, Novell, Informix, or AT&T. I'd bet they would not be as good executives as incompetents. The point is that it is clearly very hard to succeed, and easy to fail, in the business that they supposedly know. Just because they have eaten food all their lives, I think most of them would not presume to know how to run a farm or a restaurant. So because they are at school, or dropped out in some cases, why assume they know how to run education? Let's face it, when you see a Gil Amelio get paid \$5 million to stop running Apple Computer, having lost another \$1.5 billion of stockholders' already depleted wealth, you have to wonder if such credence or sympathy such people really warrant.

In your book you wrote about hyperlearning. More recently you coined the term kanbrain, which Tom Peters honored as the idea of the Year. Now you are publishing a newsletter on knowledge management. Which of those three is the force that you see topping the economy of education?
I suppose all of them. Each is a way of slicing the same basic phenomenon. As I said, I was frustrated that the publisher and therefore many readers thought my book was about school reform, when it really was concerned with everything beyond and instead of school.

So why did you call it School's Out?
Actually, the title originally gave it was *The Mindcraft Economy* but the publisher thought *School's Out* was more provocative. Anyway I coined "hyperlearning" to put a label on the web of postacademic knowledge processes that is the driving force of the new economy. Later, when I was working on an article for *Forbes* about how The Transformation was taking root in the corporate world, John Seeley Brown, the research director of Xerox, told me he thought hyperlearning was not such a good term.

Why is that?
Because, as he put it, when colleagues corporate managers hear the word learning, they reflexively get the mental image of classroom, the teacher, textbook, lecture, and such. So in the work they do on what I called hyperlearning, he and his allies try to avoid using *learning* or its more open suggestive of academia. This just bears out my argument that this new thing, whatever you call it, is not that.

So you replaced it with kanbrain. Which means what, exactly?
I had found that the leading edge companies I had studied, like Hewlett Packard, Intel, and others, were rapidly getting rid of their corporate classrooms and replacing them with the use of multimedia mesh I associated with hyperlearning in the book. All aimed to reduce preparation-oriented education and training processes with learning, and the knowledge-support process provided on-demand, just-in-time, just-enough, anywhere, anytime. I found that the architects of these new systems were particularly prone to that phrase "just-in-time." They saw, correctly, that the systems they were constructing were doing to knowledge what the just-in-time delivery processes the Japanese called *kanban* had done to material resources and goods in manufacturing. So as a new label for the subject of the *Forbes* piece, I rather unsubjectively combined *kanban* and brain.

Is that also the subject of your newsletter Knowledge Inc.?
Among several other things. We recognized a couple of years ago that knowledge had become the major source of value and wealth in the modern economy. Overwhelmingly, Peter Drucker explained this loudly (as usual) in his book *The Post-Capitalist Society*, which I misread as some kind of misleading title. He meant that the old physical form of capital was obsolete. The sources of wealth defined by traditional economics—land, labor, and capital—can't account for more than a fraction of the market value of a company like Microsoft. It's in manufacturing today, 80 percent or more of the typical company's market value is found in the form of what economists traditionally called "intangibles." That's really just a fancy term for leftovers. What could not be accounted for, in hard numbers, as real estate, labor costs, or financial assets and liabilities until recently was just thrown into the stewpot of intangibles or the accountant's goodwill. If there is a definite sign of the change from the industrial to a postindustrial economy, it's that the leftovers went from being a garnish to being the lion's share of the meal. In the case of the virtual corporation, they are just about the whole meal.

So now that's knowledge?
Well, it's obvious that the immense value of a Microsoft derives from the particular ideas expressed in the intangible information that it's changing. And from some combination of the special abilities, know-how, and character of the company's employees and leaders, its particular organization, its relationships with customers, suppliers, competitors, and allies; and its overall culture. It's become trendy in the '90s to speak of these things as "intangibles" or "organizational learning, or intellectual capital, or simply knowledge." At the same time, the economics and business textbooks have almost nothing to say about how this kind of economy works or how it can be managed. Moreover, the theory and rules of knowledge and knowledge-based enterprise are fundamentally different. For instance, if you steal my microchip design, I call it theft; but the economic loss may well be worth more than the value of my hijack a whole ship full of computers. Or this: I just read about a company that fired an employee because he refused to reveal an original idea he had for a software product unrelated to their business. They are now suing him to force him to turn over the idea the company claims to own, even though they don't know what the idea is. In spite of this sort of confusion, or perhaps because of it, sheer economic necessity has driven a growing legion of companies and entire industries to try to find ways to manage these knowledge issues profitably. We've been tracking these efforts and the lessons learned in our newsletter for over a year now.

So, how are those developments going to lead to the collapse of education?
I don't much believe in forecasting, the world being an inherently chaotic system. But the forces leading in that direction are already here out, and it's not hard to guess how they may play out. First, more and more businesses are going to be driven by their technological opportunity and competitive necessity to make the sort of kanbrain shift I mentioned, initially by replacing corporate classrooms with real-time knowledge systems. A few years ago, I wrote about the case of Hewlett-Packard. By replacing over 60 percent of classroom training with a mix of knowledge-support systems, HP would cut the cost of enabling its people to learn to a new product by about 98 percent. We've reported similar developments more recently in other companies as Silicon Graphics and Sun Microsystems. That leap is even more dramatic than the one from steamship to jet plane. The competitive pressures in the IT industry are such that once one player gets that kind of cost and performance advantage, you either get with the program or perish.

At the same time, we see a growing number of companies trying in various ways to organize and formalize their management of knowledge, learning, and intellectual capital. The initiative may come out of the information systems department, or marketing, or engineering. Often it's led by finance, because they have the bottom-line responsibility to literally account for the costs and value of whatever the business does. Some organizations even have created new positions like chief learning officer or chief knowledge officer. All these innovations are questionable, some are pure hype, and most will fall short or fail miserably. But the churn of the market will progressively refine and define some reasonably effective rules and practices. Part of the pattern I see is that the ownership of knowledge, learning, and cognitive processes is moving away from the "human resources" enclave into the more central management and productive operations of the business. A telling symptom of the sweep of that movement is the building rush of HRD and training and development professionals to reinvent and rename their traditional "performance consultants." Ironically, I just received a brochure for a seminar on this. It promises me that, for my 300 bucks, I will learn how to "contract for RESULTS, not just training activities," and "design your own internal performance consultant system, to make money by selling whatever it is they are doing as well as long, some of the big human resource and training associations adopt new names. And in fact, most of their members will be adapting to new roles, and careers.

Why couldn't educators adopt in the same way?
Because most of those business staffers' employers are increasingly driven by market forces to pay only for results, not just activities. Because those corporate trainers' students are not compelled by law to attend their classes. And because the trainers have no real market. Education cannot succeed because it has outlawed adaptation. Education reformers hold testimonial dinners and hand out awards for improvements of a couple of percentage points in test scores or dropout rates or such. And rightly so, given the slipshod attempts to try to find ways to manage these knowledge issues profitably. We've been tracking these efforts and the lessons learned in our newsletter for over a year now.

Even if education can't match that kind of innovation, why should this prized institution of knowledge and culture collapse? Won't we lose more than we gain as a society?
These business forces ultimately will reshape the whole social ecology in which academia is embedded. The same transformations I've noted will lead business to progressively abandon the vestiges of academic credentialism in its employment practices, as it becomes more and more a results measure, certify, recruit, and manage specific human skills. We see some examples of that now. Companies that are using software to grade the inventory of their workers' skills. Others using simulations to observe and assess actual work performance instead of diplomas. The boom of IT certification such as Certified Novell Engineer or Microsoft Certified Software Engineer, which have no attendance or credit-hour requirements. Advancing beyond the visible successes will advance the trend. As companies reinvent these basic systems, swaths of adult employees will have it reaped on them that the traditional rules of learning, work, and economic success have been replaced by a whole new game—call it hyperlearning, kanbrain, whatever. The next thing that happens, that is happening, is a sort of ephphra. They realize that the kids are better at it than they are. Also, that the kids are better at it than the parents. The kid gets "it," the more trouble the kid seems to have with school, and so on. That population of families may be marginally more "brain growing," left behind by the technological and market transformation of "making a living" means. Once they attain a politically critical mass, the industrial-academic age will come to an end, much as the Cold War did.

Have you seen that happening already? Do you see such people here now?
Since the publication of *School's Out*, I've heard from and met them continually. One of the first was a systems engineer in New Jersey who wrote me saying, "The school said our nine-year-old son is learning disabled, but he works with me at home on the Mac and is better at it than I am. We know he is really talented. They just don't get it. So we've become schoolers."

Do you think that home schooling is the trend—or an answer to the problem?
It's a symptom. It's really nonchooling, you know. Home schooling is a cover families need to keep the steely away. Whatever it is, it's changing. When it was mainly a preference of religious fundamentalists, there was a stigma of abnormality. As it becomes a practice of high-tech yuppies, of leaders and winners and the "cool" people, the social nature changes. As you get a sufficient mass of such people—families who rather than being isolated, want to become a community, even a majority (which is happening in some places here in Virginia)—the process itself changes. Further integrating and transforming factors are the Internet and the Web.

But where does that leave traditional teachers? Do they need to be retrained in multimedia and distance learning methods? Do you see any role for them at all in this future world?
The simplest answers are: nowhere, no, and none. But that doesn't reflect the real complexity of the questions you are asking. First, what does the phrase "traditional teachers" mean? If you mean people who currently hold supervised instructional jobs in the government-controlled academic sector, many of them, especially the younger ones, are trying to be very much not "traditional" in their craft—as the simple phrase puts it, trying to be the "guide on the side" instead of the "sage on the stage." But those people are often subjected to an even greater political backlash from critics who view whatever it is they are doing as "education" or "not teaching." Of course, *School's Out* argues that those critics are right—the modern craft of learning and knowledge is not school or education. Unfortunately, the attempt to shoehorn hyperlearning media into the traditional skeleton of academia is as much a chimera as trying to merge the internal combustion engine with the horse. As for those who still want to adhere to what they think of as "traditional" processes and institutions, I'll concede that, after the collapse or big shift, there still will be some demand for that games for old times sake, just as there still is some demand today for blacksmiths, stables, fox hunts, cattle drives, and other artifacts of the equestrian age. Let's also keep in mind that the majority of people in the U.S. who could be considered "teachers"—in the sense of having held a faculty position, or having the credentials or even better the abilities and interest to be in the craft of helping people to learn—are not currently working in traditionally defined teaching jobs. Generally they found out, sooner more than later, that serving the needs of learners and serving the requirements of academic bureaucracies are contradictory and mutually exclusive missions. In that sense, the growing list of "school Sakharovs" like John Taylor Gatto who have signed up with the Alliance for the Separation of School and State is arguably more representative of teachers than the National Education Association.

Are you saying that people who are currently employed in education have no future?
I'm pretty sure that, as individuals, just about all of them have a future, if you mean economically. What exactly that future is, either individually or collectively, I have no idea. Only the workings of the free market can determine that, which is why I see the most talented and ambitious educators leaving out of the academic state farm to make it in the real world. People can be highly enterprising and adaptive when they have the need and opportunity. Six years into the post-Soviet era, more than half the Russian workforce now works in the private sector. Thousands of Americans employed in military and defense work were disoriented by the end of the Cold War, especially in California. But, after a tough period, those people and that economy are now rebounding, seizing the growth opportunities spawned by the combination of learning technology and the hundreds of billions of dollars invested in government control.

As I suggested earlier, the longer our government keeps the U.S.'s \$600-billion academic sector and its denizens insulated from the market economy, the more economically crippled they will become, and the deeper will be the difficulty of ultimately adapting to market forces. Anyone who wants to argue that should first visit Belarus, or even just chat with the veterans in a telephone, cable TV, or electric utility company who are struggling to make it in a competitive marketplace after decades of regulatory protectionism. The sooner and more thoroughly we do to state education what most of the world has accepted as necessary in other state industries—manufacturing, mining, housing, telecommunications, transportation, electricity, and other would-be utilities—the better off everyone involved is going to be. If we have come to recognize that government is not competent to manufacture TV sets, to run an airline, to provide efficient communications services, to make movies, or to deliver a package (much less the news), why would we think these same people and bureaucracies are capable of managing the single most complex phenomenon in the known universe—the human mind? Actually, when I posed that question at a news conference in Germany a couple of years ago, the western German reporters thought the implication that government should get out of the education business also was obviously valid. Only some diehard socialists among the eastern German press were worried that the question could be raised at all.

What are the new findings and ideas you've raised, will there be a second edition of *School's Out*? Do you have a new book in the works?
Many people have inquired for a revised and updated version of *School's Out*, but so far the funding necessary to get the work done has not been provided. I'm gradually constructing a new publication from bits I've written for our newsletter and other publications like *Wired* and *Fast Company*, focused on the new rules of what I call knowledge-based enterprise. I'm also consulting with some organizations that are currently holding supervised instructional jobs in the government-controlled academic sector. Many of them, especially the younger ones, are trying to be very much not "traditional" in their craft—as the simple phrase puts it, trying to be the "guide on the side" instead of the "sage on the stage." But those people are often subjected to an even greater political backlash from critics who view whatever it is they are doing as "education" or "not teaching." Of course, *School's Out* argues that those critics are right—the modern craft of learning and knowledge is not school or education. Unfortunately, the attempt to shoehorn hyperlearning media into the traditional skeleton of academia is as much a chimera as trying to merge the internal combustion engine with the horse. As for those who still want to adhere to what they think of as "traditional" processes and institutions, I'll concede that, after the collapse or big shift, there still will be some demand for that games for old times sake, just as there still is some demand today for blacksmiths, stables, fox hunts, cattle drives, and other artifacts of the equestrian age. Let's also keep in mind that the majority of people in the U.S. who could be considered "teachers"—in the sense of having held a faculty position, or having the credentials or even better the abilities and interest to be in the craft of helping people to learn—are not currently working in traditionally defined teaching jobs. Generally they found out, sooner more than later, that serving the needs of learners and serving the requirements of academic bureaucracies are contradictory and mutually exclusive missions. In that sense, the growing list of "school Sakharovs" like John Taylor Gatto who have signed up with the Alliance for the Separation of School and State is arguably more representative of teachers than the National Education Association.

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I'm pretty sure that, as individuals, just about all of them have a future, if you mean economically. What exactly that future is, either individually or collectively, I have no idea. Only the workings of the free market can determine that, which is why I see the most talented and ambitious educators leaving out of the academic state farm to make it in the real world. People can be highly enterprising and adaptive when they have the need and opportunity. Six years into the post-Soviet era, more than half the Russian workforce now works in the private sector. Thousands of Americans employed in military and defense work were disoriented by the end of the Cold War, especially in California. But, after a tough period, those people and that economy are now rebounding, seizing the growth opportunities spawned by the combination of learning technology and the hundreds of billions of dollars invested in government control.

As I suggested earlier, the longer our government keeps the U.S.'s \$600-billion academic sector and its denizens insulated from the market economy, the more economically crippled they will become, and the deeper will be the difficulty of ultimately adapting to market forces. Anyone who wants to argue that should first visit Belarus, or even just chat with the veterans in a telephone, cable TV, or electric utility company who are struggling to make it in a competitive marketplace after decades of regulatory protectionism. The sooner and more thoroughly we do to state education what most of the world has accepted as necessary in other state industries—manufacturing, mining, housing, telecommunications, transportation, electricity, and other would-be utilities—the better off everyone involved is going to be. If we have come to recognize that government is not competent to manufacture TV sets, to run an airline, to provide efficient communications services, to make movies, or to deliver a package (much less the news), why would we think these same people and bureaucracies are capable of managing the single most complex phenomenon in the known universe—the human mind? Actually, when I posed that question at a news conference in Germany a couple of years ago, the western German reporters thought the implication that government should get out of the education business also was obviously valid. Only some diehard socialists among the eastern German press were worried that the question could be raised at all.

What are the new findings and ideas you've raised, will there be a second edition of *School's Out*? Do you have a new book in the works?
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The teacher is an appendix of the classroom/textbook/lecture model of learning, which is technologically obsolete. In the new hyperlearning enterprise, there may for a while be a role for human facilitators or coaches, but it probably will not be a profession or sole vocation, and certainly will be incompatible with the perpetuation of tenure and unions.

—Lewis J. Perelman, *NEWSMATTER* Today, Vol. 3, No. 4

Lewis J. Perelman (kanbrain@concentric.net) is executive editor of the management newsletter, Knowledge Inc. (www.knowledgeinc.com). School's Out is available from www.aikt.net.

This interview with Lewis Perelman is featured in TECHNOS Press's *Future Courses: A Compendium of Thought about Education, Technology, and The Future*. Jason Ohler, Editor (2001). Click here for ordering information on *Future Courses*.