

Shaking Up the Schoolhouse

How to Support and Sustain Educational Innovation

Phillip C. Schlechty

Ch. 1, Introduction

Social Change and School Reform

In the early 1980s, school reformers were full of hope. Many believed that U.S. schools in the twenty-first century would differ dramatically from the schools of the 1970s. Student achievement would be up; dropout rates would be down. The public schools would be viewed with pride by all American citizens. America's schools would be, as the saying goes, world-class.

The twenty-first century is now upon us. The public schools of America in the year 2000 are not that much different from the schools of the 1970s. The pace of public school change and improvement has been slow, so slow that increasing numbers of serious men and women have begun to doubt that real improvement in the American system of education is likely.

I have written this book because I believe that to give up on our ideals for universal public education is to give up on our democratic way of life and because I believe that real improvement is possible. Schools can improve when their leaders turn them into organizations where change is embraced as an opportunity rather than coped with as a problem.¹ Improvement must be continuous and must be embedded in all systems a school comprises. Schools can improve when school leaders learn how to build a supportive community, respecting diversity but healing divisiveness. Schools can improve when school leaders focus on their business and have properly understood the nature of that business. In this book I describe how school leaders, including teachers, can improve their schools in all these ways. In this introductory chapter, I sketch the world of public criticism, social change, and technological challenge in which schools must become change adept, build community, and become expert at the business of creating engaging work for students.

THE CLIMATE OF COMPLAINT

It is not an exaggeration to say that the history of school reform is a history of complaint. Though Americans long held public schools in high regard, they also always complained about them.² Historically, however, most of those who complained about the schools as *academic* institutions were members of the academy (university presidents, college deans, and so on) or members of the cultural and educational elite (such as journalists, editors, and professional social critics). In recent years such criticism has become much more widespread. Governors and presidents, members of Congress, and state legislators too are critical of the schools, as are increasing numbers of local mayors. These critics have focused particularly on the failure of the schools to produce students with sufficient academic skills to ensure a *world-class workforce* within the context of an economy that requires *knowledge work* as its primary mode of increasing productivity. Many business leaders are now echoing this complaint as are increasing numbers of parents.

Business leaders of the past tended to focus on the schools' role in vocational training. Today those leaders say that schools do not develop the academic skills students will need to engage in continuous, purposeful learning as employees. These leaders are equally concerned that the schools are not developing or enforcing the moral standards and work habits that they see as necessary for a world-class workforce. One poll has shown that after nearly twenty years of active involvement by business leaders in efforts to improve America's schools, 78 percent of the American business leaders surveyed viewed education as either the number one or number two barrier to the success of their organization.³

And of course the number of citizens, parents and nonparents, prepared to be critical of schools' academic quality has expanded. The parents most likely to be concerned have always been those who plan on college for their children. More Americans than ever before are enrolling in colleges and universities. Indeed, the present generation of adult Americans contains a larger proportion of high school and college graduates than any generation before. Furthermore, there is some evidence that better-educated individuals are more likely to see the schools as lacking in academic standards, and these people also have the verbal and organizational skills to make their complaints heard. There is a certain irony in the possibility that the past successes of America's public schools are making today's schools more likely to be subjected to criticism, especially criticism of their academic programs.

For example, a recent Phi Delta Kappa/Gallup poll asked respondents this question: "As you look on your own elementary and high school education, is it your impression that children today get a better--or worse--education than you did?" Forty-one percent of all respondents in both 1979 and 1998 perceived the schools to be better. The percentage that perceived the schools to be worse rose from 42 percent in 1979 to 48 percent in 1998.⁴ This may not seem a large gain in negative assessments. However, a more fine-grained analysis is revealing. According to Rose and Gallup: "Groups more likely to believe children are receiving a worse education include the West (27% better, 59% worse), political independents (33% better, 52% worse), college graduates (31% better, 51% worse), those with incomes of \$50,000 and over (34% better, 55% worse), and professionals and business people (33% better, 55% worse). Groups likely to feel children are getting a better education include nonwhites (53% better, 40% worse), Democrats (47% better, 42% worse), those in the South (49% better, 43% worse), and public school parents (49% better, 43% worse)."⁵ It is reasonable to speculate that those most likely to see the schools as worse than they used to be are also those who may have benefited most from the schools of the past (for example, professionals and businesspeople and those with incomes above \$50,000); whereas those who see the schools as better are also those for whom the schools of the past may have been less effective (Southerners and nonwhites).

At the same time, many educators believe that the criticisms they are now receiving from all parts of society are unjustified. As a result they often respond with expressions of hurt, bewilderment, and anger. Some go so far as to claim that the biggest problem the public schools have is a public relations problem. Bad news sells. Good news does not sell. The press prefers bad news to good news, so the good news about the schools does not get to the public.

Some of the criticism of the schools is valid, but there is also considerable justification for the claim that educators too often receive unfair and misguided criticism, and it is important that we sort out the valid from the unfounded complaints. Indeed, America's schools are far better than many critics say,⁶ and many American citizens are terribly ignorant about the public schools. Not only do they underestimate present performance, they overestimate the performance of schools in the past. Their criticism too often

assumes there was a time when America's schools were more productive, a time when all students could read, high school dropouts were few, and all parents were supportive. For example, *A Nation at Risk*, the report that many credit with initiating the present reform movement, described the performance of America's schools as "a rising tide of mediocrity."⁷ The image was one of an eroding system that had once been great. The goal was to restore America's schools to their former greatness.

Yet judged as academic institutions America's public schools have always been suspect.⁸ In the not-too-distant past, schools were judged as much on social productivity as on academic productivity. The primary mission of the schools, functionally speaking, was to select and sort students according to the talents they brought to the schools and to "Americanize" the children of immigrants. Today, the assumption is that the talents once thought to be inherent in the individual, especially academic talents and skills, can be developed by the schools. Therefore a school judged successful in the past would not meet our expectations today.

Critics of America's schools lament the current dropout rate but never acknowledge that it is substantially lower than in the past. In 1970, for example, 52.2 percent of Americans above the age of twenty-five had attended four years of high school. Today that number is in excess of 85 percent.

When it comes to criticism of students' geographical illiteracy, scientific illiteracy, and historical illiteracy we should remember the curriculum projects of the 1960s designed to eradicate such illiteracies and make our scientists competitive with other countries' scientists. If the schools of the past were so effective, why are we hearing the same criticisms four decades later? It *is* disgraceful that some of the young soldiers who fought in the Gulf War probably could not find Saudi Arabia on the map if given two continents to spare. It is also a shame that young soldiers going to Bosnia may not know who the Archduke Ferdinand was or why he was important to the world. But are they all that different from the young men who joined the Army in 1941 who did not know where Pearl Harbor was?

In the not-too-distant past a significant number of Americans were literally illiterate in that they could not decode words on the written page. Today, 99 percent of all adult Americans can read in the sense that they can decode words.⁹ The illiteracy rate that concerns us today is the *functional* illiteracy rate. Nearly half of adult Americans are functionally illiterate; they cannot read well enough to manage daily living and employment tasks that require reading skills beyond a basic level. Literal illiteracy has been eradicated. What remains to be eradicated is functional illiteracy, which represents a newer, higher standard.

Taking a romantic view of the past in relation to the present often translates into misguided policies and acerbic commentary, summed up in the battle cry "back to the basics." But how, it should be asked, can we go back to where we have never been?

Yet educators cannot take comfort from the fact that complaint about the schools is an ongoing and even traditional process in America. To make this mistake is to foreordain the demise of our system of public education. Instead, once we have weeded out the criticisms based on myths about the past, we must look at the very real differences in the nature of past and present criticisms and there we will find concerns that must be addressed if public schools are to survive as a vital force in American life.

First, as described earlier, many more people, from politicians to businesspeople to taxpayers to parents, are criticizing the schools today. Second, their criticisms are

increasingly focused on academic standards. There are many forces at play that make the academic quality of schools of growing importance. For example, there is the concern mentioned previously about developing a more effective workforce of individuals prepared to perform knowledge work and prepared to function well in multinational companies. There is the concern about preparing young people to carry out their responsibilities as citizens in an environment in which people are bombarded twenty-four hours a day with raw data and unprocessed information. In the past it was adequate if one could critically analyze the interpretations of others such as journalists, ministers, newspaper editors, and authors. Nowadays, the ability to synthesize facts and to give meaning to these facts is as much a necessary tool for citizenship as it is a skill needed to work in the modern workplace. Further, when interpretations are offered, they are likely to come not from known quantities in the local community, with known agendas and biases, but from sources outside the community and outside the context of community values. Under such conditions the survival of American democracy may well depend on the ability of citizens to think for themselves and not just choose among preprocessed ideas handed to them by competing talk show hosts and nationally oriented publications.

Given the changing demands placed on schools and, as I discuss later in this chapter, the changing context in which those demands are being made, it is not surprising that many Americans are becoming convinced that the present education system is sick, without direction or standards, and unable to repair itself. It is also understandable that more and more Americans are willing to consider options to public education such as vouchers and charter schools that would have been rejected outright by the majority of American citizens a generation ago. According to the Phi Delta Kappa/Gallup poll, for example, 44 percent of those surveyed favored tax-based support for private education and vouchers in 1998, up from 24 percent just five years previously. In 1998, 48 percent of public school parents and 59 percent of blacks favored tax proposals for private schools as well.¹⁰

Are such measures called for? Perhaps. If nothing else results, the threat that many educators see in charter schools and vouchers may be a spur to change in the way public schools go about their business, creating a sense of urgency that is too often lacking today. Yet there are also many problems inherent in voucher and charter school programs, including the likelihood that nonparent taxpayers will want some control over the ways their money can be spent in such programs, and the very real possibility that careless implementation could destroy public schools without improving the quality of education in America.

We will probably do better to focus our energies on taking action to improve our existing schools, but too many educators today feel powerless to do so. If they have not dismissed as unfounded the shrill, mean-spirited, and accusatory criticism they hear, they have often dislocated problems from the schools and insisted that the solutions lie elsewhere--for example with parents or the larger society.¹¹ Such a view places the problems of the schools beyond the control of educators, which produces feelings of powerlessness. Feelings of powerlessness turn into feelings of hopelessness and despair. Hopelessness and despair encourage inaction. Legislators and critics insist that "something" needs to be done and that educators need to be "accountable." In the face of apparent inaction, this desire for action gets transformed into threats and intimidation. Threats and intimidation produce fear and panic. Fear and panic produce frenetic activity--activity that is without clear direction, activity that has little prospect of correcting the conditions that give rise to the threat in the first place, though it consumes considerable energy and gives the illusion that "something" is being done. The upshot is that in spite of great effort, little improvement occurs and the criticism goes on.

If America's system of public education is to be preserved and revitalized, its leaders

must take purposeful and persistent action. *Such powerful action will come about only when educators accept the fact that as good as America's schools are, they are nowhere near reaching the level of productivity that is required for them to continue to survive--let alone to thrive--in the twenty-first century.*

Moreover, because public schools have no history of producing an entire population of academically well grounded citizens, despite the persistent myth of a golden age of education, *if the schools of America are to survive and thrive, American educators must be prepared to do things that have never been done, under conditions that have no precedents in our history.* To achieve powerful action and make schools thrive, educators must first understand the tremendous social shifts and technological changes they are confronting and the expectations these conditions impose on them.

SEISMIC SHIFTS

School leaders, like leaders in other organizations, have implicit and explicit assumptions about the environment in which the organizations they lead exist, and these assumptions are the basis on which schools are organized, rules and norms are developed, roles are assigned, and relationships are established. Over the past fifty years there have been major shifts in the structure of the larger society in which the schools are embedded, and these shifts are challenging the assumptions on which the schools are based. These changes are of such a magnitude that they may well be compared to seismic shifts. And like seismic shifts, they can lead to the destruction of the smaller structures that depend on the larger structure for support.

Which shifts are most significant in shaping the problems that confront school reformers? I nominate the following eight for the consideration of all concerned with the future of our schools.

Every Child an Academic Success

Shift 1: From a society in which only the culturally elite and the intellectually gifted were expected to achieve high levels of academic competence to a society in which nearly all students are expected to perform at levels once assumed to be the purview of a few.

It is now commonplace for educators to assert that every child can learn at high levels. There was a time when such a belief would have been viewed as absurd, when it was argued that academic learning was not for everyone. Today it is assumed that academic learning is for everyone and that to fail to ensure literacy in the basic subjects (especially science and mathematics) is to fail utterly. Just fifty years ago, for example, high school algebra was a part of the college preparatory curriculum and reserved for those few who would be attending college. Today many states and local school systems have made algebra a graduation requirement.

Schools are failing to meet this expectation that all students can learn, and it is all too common for educators to blame parents or students for this lack of performance. It is certainly the case that some students lack ambition, are careless about their performance, and are unwilling to expend more energy than is essential just to get by. And certainly individual students should assume responsibility for their own performance. Parents as well as schools should teach such values and standards as those contained in words and phrases like *duty*, *obligation*, and *respect for legitimate authority*. Persistence and working hard remain essential notions to anyone interested in pursuing excellence in any field of endeavor. However, sloth and laziness, short attention spans, and poor work habits do not explain why so many children are not learning more. *The reason America's*

schoolchildren are not learning what we want them to learn is that in too many instances they are being asked to do things they do not see as worth doing in order to learn things adults want them to learn. If educators want students to work hard and be persistent, they must find ways of designing work that students believe to be worth doing.

Currently, our schools offer students a limited range of experiences through which to develop, apply, and refine academic skills and concepts. When students are not prepared to participate fully in these experiences that reflect the norms, values, and work styles of the academy, they have no alternative means of learning. There is, after all, an anti-intellectual streak running throughout America's social landscape.¹² Americans, especially in the working classes and the business classes, show a strong preference for the practical over the theoretical and the applied over the abstract. Such distrust of the "merely" theoretical and the nonpragmatic is not limited to the less schooled. Teachers who disavow theory as a guide to practice are evidencing the same distrust of ideas that the business leader evidences when he or she states, "Those that can, do; those that can't, teach," or that Archie Bunker shows when he refers to his educated son-in-law as "Meathead." Thus, despite the demand for academic skills, people do not want to gain these skills through traditional academic methods.

In many other nations, especially Germany and Japan, it is recognized that the ways of the academy are not the only ways through which one can develop academic skills and understandings. In much of Europe and Asia vocational education is a mechanism for teaching not only vocational skills but also academic skills. In fact, it is reasonable to speculate that broadly conceived vocational education offering intellectually challenging experiences is one of the reasons European students with middling academic talent perform better on academic tests than their American peers do.

Yet these techniques are probably not importable to the United States. When American schools do provide optional ways of learning academic content or developing academic skills, these options often become stigmatized as programs for inferior students who are incapable of doing high-quality academic work. This has happened to various vocational education and apprenticeship programs, and there is no reason to believe that newer efforts, such as the school-to-work initiative, will enjoy a happier fate. Indeed, as one proponent of more investment in vocational education has sardonically observed, "Most parents would rather say their child flunked out of the University of Georgia than that he attended a technical school."¹³

Most Europeans are neither shocked nor dismayed when they observe that those who gain entry to high-quality academic programs come disproportionately from families that have attended these same kinds of programs. Although meritocratic principles permit some social mobility and ensure that the system of education valued in Europe can be rationalized as consistent with the idea of democracy, for the most part education in Europe and also Japan reflects clear social class biases, and these biases are in the main accepted as legitimate.

In America--where it is assumed that upward mobility is a more desirable state than social class stability and that academic education is a prime driver of this upward mobility, which has historically shaped the so-called American dream--similar patterns of enrollment lead people to assume the programs involved are exclusionary, antidemocratic, and fraught with difficulties that must be addressed through positive social action. Conversely, when a program seems to have too many children from families that have no history of great academic success (usually disproportionately the poor, including poor minorities), it is typically attacked as racist or as designed to keep poor kids in their place. In America academic education is preferred because it bestows

and confirms status. College-educated Americans may want better vocational education for the children of other people, but for their own offspring, a sound academic program is what is desired.

The upshot of all of this is that in America it will not do to make vocational studies more academic, for vocational studies will still be stigmatized studies. Instead, American educators need to figure out what it is about vocational studies that makes them engaging to students and then ensure that academic studies reflect the values embedded in these less academically oriented efforts.

Such lessons are more likely to be learned if educators come to understand and embrace the notion that academic work is simply a special kind of work, what Peter Drucker refers to as knowledge work.¹⁴ Work, after all, is nothing more or less than purposeful activity that has a clear end in view. Intellectual work (and schoolwork should be intellectual work) is no less work than is work that calls for the application of muscle and sinew. Knowledge work is nothing more or less than the disciplined application of the mind and the creation and application of the products of this effort. Therefore it should be possible to describe what leads youngsters to do work (to engage in purposeful activity) and then to design work that leads to academic skills in ways that are responsive to the motivational frameworks students bring to their tasks.¹⁵

Parents as a Shrinking Minority

Shift 2: From a society in which parents were in the majority and the ethnic and racial composition of that majority was clear and understood to a society in which parents are in the minority and majority status is no longer so clear.

Educators are generally aware of the implications of such important demographic shifts as changes in the racial and ethnic composition of student populations. Yet equally important though less well recognized demographic shifts are occurring as well. For example, as a result of better contraceptive devices and the increasing desire of young women to pursue careers, well-educated women are tending to have their first child at an average age well beyond the average age of fifty years ago. The result is that the range in age and educational experience among parents who are sending their first child to school is generally much wider than it was in the "good old days." In nearly every school there will be the children whose mothers are barely out of childhood themselves and the children whose mothers decided to have children only after finishing a Ph.D., M.B.A., or M.D. degree. It is unlikely that these two mothers will have basically the same needs and require the same things from schools.

Another unrecognized--or at least not commonly acknowledged--demographic fact is that less well educated parents send proportionately more children to school than do the more well educated. Furthermore, the children of the poor are more likely than are the children of the affluent to come from families where there is only one parent.

Yet another often overlooked fact is that many more Americans than in the past are choosing to have no children at all and that those who make this choice are more likely to come from among the more well educated (and presumably more influential) segments of the communities in which they live.

Such unrecognized demographic shifts may mean that policies and changes in practices advocated by reformers may worsen rather than ameliorate overall educational problems. For example, much of the rhetoric surrounding the voucher movement is based on "the rights of parents to choose." What is overlooked is that when the right of parents to unfettered choice is guaranteed then the nonparents, who now pay the majority of the

taxes, lose even the semblance of control over the way their money is to be spent. Education under these circumstances becomes an entitlement and a private right rather than a civic duty and a public good. In the full-blown voucher system some are proposing, the only involvement nonparents will have in the conduct of the schools is to pay for them. It will be up to a minority (parents) to determine how the money of the majority of the taxpayers will be spent. In the long run, this condition can serve only to further estrange senior citizens and nonparent taxpayers from the schools.

Similar effects can be expected from efforts to decentralize school systems by assigning much of the decision-making authority to teams of teachers, parents, and school administrators rather than to elected boards of education. Ineffective though many are, boards of education do much to maintain at least the semblance of community and citizen control of schools and, with appropriate reform, may even provide the last best hope for realizing this local influence.¹⁶

Educational reformers and leaders who are concerned about revitalizing schools must find some way to integrate into the life of schools nonparent taxpayers, those who pay for schools but have no direct and concrete stake in them.¹⁷ For example, educators can examine the way they communicate with the community about matters related to schools. Sending messages home with children no longer suffices when a majority in the community are nonparents. At the very least, educators and policymakers should take care not to endorse policies and practices that increase the already wide chasm between nonparent taxpayers and the schools.

Government Schools

Shift 3: From schools positioned as local institutions central to the life of the community to schools positioned as government agencies controlled and directed by state and national interests and forces.

Schools, like churches, were once perceived as focal points of community activity. Moreover, part of the bargain struck between taxpayers and parents has been that in exchange for receiving for their children an education paid for either wholly or in part by tax dollars, parents have yielded some control of the child's education to the community. So long as the schools were viewed as community agencies, this did not constitute a serious problem for most parents. They too were a part of the community, and they had a voice in the direction set by the community.

As schools have increasingly come to be seen as government agencies rather than community agencies, this bargain has become suspect. Critics of the public schools see, for example, religious freedom translated into religious indifference rather than religious neutrality. They see the valuing of pluralism and diversity translated into what they consider a value-free and therefore valueless curriculum. This is happening at the same time that the trust citizens have for government agencies and government leaders is eroding. The consequence is increasing estrangement from the schools and growing distrust of school leaders (whom the most distrustful sometimes refer to as "educrats").

It is technically correct to say that schooling in America is and has been for over two hundred years a function of state governments. All state constitutions attest to this fact. In the not-too-distant past, however, it was up to the local community to decide what should be transmitted from one generation to the next. The state could advise, but local control of local schools has long been a sacred icon in American education. Local control encouraged the citizenry to see the schools as local community institutions. Now, increased state and federal activism in the areas of educational policy and programming has dramatically altered this view. Prior to the late 1950s, the presence of the federal

government in the life of public schools was almost nil, limited primarily to a linkage between the Department of Agriculture and vocational agriculture programs. But beginning in the mid-1950s and accelerating in the 1960s and 1970s, the federal government became deeply involved in life in the local schools. Federal activism first appeared when the government, through the Office of the President, used the military to enforce court desegregation orders. In 1957, the same year that troops were first used to obtain compliance with such court decisions, the launch of Sputnik and the linkage political leaders made between the "missile gap" and what they saw as the failure of America's schools to turn out enough scientists served to legitimize increased federal activism in educational policy as witnessed by such developments as the National Defense Education Act and the National Science Foundation curricula and teacher training programs.

In making these observations about increased government intervention, I do not want to be misunderstood. Local control of schools is not now nor has it ever been an unmixed blessing. Given the diversity of American society, the values expressed in local communities can sometimes be at odds with the values that guide the larger society as these values are expressed in such documents as the Constitution of the United States or as they are expressed in more cosmopolitan and well educated circles. Such differences are what the culture wars that surround the schools are mostly about. This is why *Brown v. Board of Education* was deemed necessary to bring about desegregation, and it is the reason Public Law 94-142 was passed by Congress to ensure the rights of the handicapped.

The clash between local preferences and more general values in the areas of civil rights and civil liberties has been played out in the federal courts and the halls of Congress. In order to act as they have acted, the courts had first to assert that the schools are first and foremost government agencies and only secondarily community institutions. For example, in order to force the issue of desegregation, it was necessary for lawyers to sue states or to emphasize the fact that local school districts are creatures of the state and that the will of local communities and local elites is necessarily subservient to the will of larger government units that represent the common good.

Again, I do not want to be misunderstood. This is not to say that *Brown v. Board of Education* was misguided. Clearly, not all students were being equally or well served by the schools that existed at the time of the Brown decision. That there was an obligation to do something about this matter and that the courts behaved properly in undertaking that action seems now generally accepted. Indeed, as many Southern educators and civic leaders now attest, integration has turned out to be not a necessary evil imposed by an interventionist federal government but a positive good, appealing to communities' better instincts rather than to the unlovely and antidemocratic passions that racist policies arouse.

Nevertheless, one of the unintended consequences of this set of actions has been to give support to subtle shifts in people's minds about what the schools are and whom the schools should serve. The federal troops at Central High School in Little Rock allowed desegregation to proceed, but they also symbolized for some a stronger government role in schools thought of as community schools--even though in excluding African-American youngsters they had clearly excluded a large portion of the total community.

Battles over civil liberties as well as civil rights have further reinforced the increasing public perception that the schools are creatures of some distant government rather than institutions reflecting local community values and preferences. Supreme Court decisions on school prayer, for example, which argued that local communities could not use a state

agency to promulgate religious practices, were and are continuing to be sources of citizens' estrangement from the public schools. The arguments regarding the separation of church and state have clearly positioned the schools as creatures of the state.

The federal government has also emerged as one of the chief advocates for equity generally and the rights of the handicapped in particular. And again, much that is good has happened that would not have happened without federal intervention. Adult Americans today are surely more understanding of handicapping conditions and the needs of the learning disabled than were parents in the days when a character named Denny Dimwit dominated the comic pages and Mortimer Snerd and Cauliflower McPugg were regulars on radio and later television. However, parents whose children have no special needs often see federal advocacy for disabled students, especially those with behavioral difficulties, as nothing more or less than a government ploy to force their children to interact on a daily basis with children who are "bad and disruptive."

Words like *inclusion* do not resonate with many of these parents. For example, in the Phi Delta Kappa/Gallup poll mentioned previously only 10 percent of nonpublic school parents and 29 percent of public school parents said they believed that students with learning problems should be taught in the same classrooms with other students.¹⁸ Moreover, fighting and violence and lack of discipline and control were the top two issues of concern among all those polled. Given such views, there seems to be quite a disparity between what local community leaders want and the world envisioned by the regulations and laws developed in response to advocates for students with special needs. The disparity is only made worse by the fact that many federally funded initiatives are presented in the most bureaucratic, jargon-laden language imaginable, further estranging local citizens used to their traditional terms. Rather than speaking of *schoolhouses* and *teachers*, federal agencies refer to *local educational agencies* and *professional employees*. Euphemisms like *at-risk* (usually applied to poor youngsters who lack the supports assumed necessary to succeed in school) and *urban* (usually applied to schools serving large numbers of racial and ethnic minorities) often conceal as much as they reveal. To be sure, such language protects some of the weakest and most vulnerable among us from needless hurt and pain. Yet it sometimes also discourages the kind of straightforward conversations we all need to engage in if we are to change public schools in ways that build our communities rather than destroy them.

A final fact that must be considered when attempting to understand the repositioning of the schools in the public perception as government rather than core community agencies is that in addition to federal intervention, state activism in education and educational policy has increased dramatically, and it seems unlikely to abate in the near future. Much of this state activism is spurred by economic development interests, specifically the desire for a world-class workforce to attract and retain industry. Another spur has been the court decisions holding that the schools are creatures of the state and that it is in the state constitution rather than in the local community that schools find their reason for being. When local resources are unequally distributed, it becomes the legal obligation of the state to address these issues, thus the recent emergence of a plethora of financial equity lawsuits.

One consequence of this activism, however, is that local boards of education are coming to see themselves as losing control of their schools, and local administrators are finding themselves increasingly accountable to the state rather than to the local school board. *The upshot of all this is that schools are increasingly positioned (to borrow a marketing term) as cold, bureaucratic government agencies where once they were viewed as a special kind of house--a schoolhouse.* As a result the crisis in public confidence that

confronts government agencies in general is affecting schools as well.

Nevertheless, the public still has more confidence in the public schools than in many other institutions, including some whose leaders are most eager to offer scolding and advice to educators. For example, 42 percent of all respondents to the poll mentioned earlier said they had some or quite a lot of confidence in the public schools.¹⁹ Though not a resounding endorsement, this was better than the expression of confidence given to local government (37 percent), state government (36 percent), big business (31 percent), the national government (30 percent), and organized labor (26 percent). Such findings have not discouraged mayors from taking over schools or state governments from mandating specific school reforms. They have not discouraged the national government from directing local school districts on the best ways to solve their problems. Nor have they discouraged leaders of big business from asserting that the schools need to be run more as businesses are run. But what educators really must do if America's schools are to be saved is to figure out ways to ensure that the schools are once again central to the life of the community. And they must do these things in the face of the growing public cynicism toward institutions and especially toward government institutions. Perhaps viewing the schools as agencies intended to build communities rather than as agencies intended to serve communities, often in places where a sense of community no longer exists, is a means to this end.

The Loss of Community

Shift 4: From a society in which the place where one lived and one's sense of community were highly correlated to a society in which one's sense of community is determined more by the interest groups to which one belongs, the place one works, and one's racial and ethnic identity.

Numerous books and articles have been written about Americans' increasing loss of a sense of community. Sometimes these authors also point with justifiable distress to the apparently growing lack of civility in public dialogue, the declining willingness of individuals to put themselves at risk on behalf of others, and the general feeling of isolation and estrangement. It is also my view that our society's very idea of community is substantially different from what it was when the American system of public education was being built. Such ideas are usually based in myth as well as fact, but it is the change in belief that matters here. As initially conceived, the purpose of the schools was to serve the community, and it was assumed there was a community to serve. Today, serious writers can raise the question, Is there a public for public schools?²⁰ This contrasts starkly with a time (1932) when George S. Counts's question, "Dare the school build a new social order?"²¹ was taken seriously because schools were assumed to have such power.

One need look no further than the dynamics of many local school boards to see the harmful effects of the loss of a traditional sense of community and the rising influence of interest groups and factions. School board meetings too often become nothing more or less than formalized bargaining sessions among interest groups seeking their own advantage. At these meetings, interest group politics, value clashes, and factionalism bear directly on the formulation of school goals and procedures. Rather than serving as builders of the community and creators of a common vision, rather than serving the interests of students and the interests of the future, too many boards symbolize and exacerbate the many ways communities are torn and divided against themselves.²²

Rather than serving *the* community, modern educators must serve many communities, factions, interest groups, and organized lobbies--each of which is in a position to make demands and assert expectations. Rather than asking, How can we best serve the common good? educational leaders increasingly feel compelled to ask, How can we satisfy competing interests enough that they will permit us to survive? It is becoming

abundantly clear that for public schools to survive the culture wars that surround them, school leaders, including boards of education, must find ways of building and leading community as well as ways of representing and responding to the diverse interests and beliefs that characterize so many local school districts. Skill in building communities and skill in creating a sense of the common good is what is now needed in schools. It is difficult to serve the community when there is no clearly defined community to serve.

A Tribe Apart

Shift 5: From a society in which adolescents were integrated into the life of the community to a society in which the young are increasingly segregated from the more vital aspects of adult community life and are led to establish a life almost totally lacking in meaningful interaction with adults.

As Patricia Hersch argues so convincingly, the world of the young and the world of adults have grown further and further away from each other.²³ Indeed, she calls today's young "a tribe apart." This shift has come about not only because the level of meaningful interaction between adults and children has declined in terms of both the numbers of adults who interact with each child and the depth of those interactions that do occur but also because adults increasingly tend to create conditions of anonymity and separation for the teenage crowd through such devices as special teen clubs and gathering places. Of course such special places can have a desirable function; nevertheless, there is a vast difference in the patterns of interaction that occur at a teen-oriented site and those that occur, for example, on a slow-pitch softball team that includes both adults and adolescents.

In addition, compared to previous generations the present generation of students has much more access to information totally free of adult censorship. The "liberation" of America's youth began with the invention of the portable recorder and the car radio, which made it possible for young people to listen to Elvis Presley and other "forbidden music" beyond the hearing of parents (the living room Victrola was hard to take to the beach). The increasing availability of paperback books and inexpensive magazines made it possible for youngsters to bypass adult censors and to read what they wanted to read, whether or not their parents, their teachers, or the librarian approved.

Finally, the rise of the Internet and electronic technologies for storing, distributing, analyzing, and communicating verbal, pictorial, and symbolic information has helped turn local groups into national audiences and has created a world for adolescents that transcends the boundaries of families and locales. The institutions that have historically been the primary agencies of socialization (the family, the religious institution, and the school) are finding it difficult, if not impossible, to compete with the masters of media, mass entertainment, and mass communication for the attention of children and youths.

The electronic revolution has also been instrumental in the erosion of traditional authority. Schools work on the assumption that children are obliged to obey their elders, that teachers stand in the place of parents (*in loco parentis*), and that adults are generally in agreement about what should be expected of children. In what must surely be one of the most penetrating descriptions of the internal life of schools, Willard Waller describes the school as

a despotism threatened from within and exposed to regulation and interference from without. It is a despotism capable of being overturned in a moment, exposed to the instant loss of its stability and its prestige. It is a despotism demanded by the community of parents, but specifically limited by them as to the techniques which it may use for the maintenance of a stable social order. It is a despotism resting upon children, at once the most tractable and the most unstable members of the community. . . .

To understand the political structure of the school, we must know that the school is organized on the authority principle and that that authority is constantly threatened. The authority of the school executives and the teachers is in

unremitting danger from: (1) the students, (2) parents, (3) the school board, (4) each other, (5) hangers on and marginal members of the group, and (6) alumni. . . . The difficulties of the teacher or school executive in maintaining authority are greatly increased by the low social standing of the teaching profession and its general disrepute in the community at large.²⁴

The list of threats Waller generated in 1932 only hints at the threats to the authority of the schools today. Not only is the authority of the schools threatened but so also is the authority of parents. Indeed, in some cases parents themselves seem to accept the legitimacy of the view that the young, especially adolescents, are legitimately a "tribe apart."

In the not-too-distant past, adolescents had a difficult time gaining access to information that had not undergone censorship by adults who were generally known to them and to each other. Teenagers could assert their distinctiveness (as bobby-soxers, for example), but they could not establish the kind of anonymity required to emerge as a distinct subculture. Although adults have lamented the foibles of the young and worried about the moral character of the next generation throughout recorded history, the idea of an *adolescent culture* did not begin to take shape until the mid to late 1950s,²⁵ and the idea of a *generation gap* did not emerge until the 1960s. The advent of the individually controlled electronic media and the accompanying democratization of access to information have made a qualitative difference in the relationship between children and adults as well as in the relationships among adults themselves. This difference is a difference in kind rather than degree. It is a mutation rather than a transformation.

Put as directly as I know how to put the matter, up until the 1950s, if one knew what parents, teachers, and religious leaders were teaching the young, one could be relatively confident that one knew, in a general way, what the youngsters knew. This is no longer true. Much of what the young know today comes from forces and sources totally outside local community ken or control. Among the more powerful of these forces and sources is the adolescent society itself.

The erosion of adult authority is compounded when the schools function as though youngsters' access to information were still restricted. Waller commented in 1932 that "communities in general, perhaps especially American communities, have chosen to use the schools as repositories for certain ideals. . . . The belief is abroad that young people ought to be trained to think the world a little more beautiful and much more just than it is, as they ought to think men more honest and women more virtuous than they are. A high school student must learn that honesty is always the best policy. . . ." ²⁶ Nowadays, even though there is little information adults have access to that children cannot also access if they have a mind to, parents and others in the community often insist that schools continue to function as museums of virtue. This causes those who teach to be less than candid about what they know their students know and students to be less than candid with their teachers. The upshot is that the confidence of students in the adult authorities in their school lives is further eroded.²⁷

Despite all this, schools, more than any other institution, have the potential to reintegrate the young into the world of adults. Educators are more likely to achieve this end if they learn to view the school as a workplace. Each day 2.5 million teachers show up for work. An even greater number of support persons show up for work. All these people get paid for what they do, just as the physician gets paid, the computer programmer gets paid, and the person who hauls the garbage gets paid. They keep schedules, they solve problems and work in teams to do so, and they produce products and provide services. Moreover, the kind of work done in school is predominantly the kind of work that is becoming increasingly commonplace in the world beyond the school. It is knowledge work--work that involves the acquisition, development, and application of intellectual skills,

concepts, theories, and problem-solving strategies as opposed to the application of muscle and sinew.

Knowledge work is what schools are about. Armed with this understanding, teachers can begin to see themselves differently. They can see themselves as leaders and inventors of knowledge work rather than as performers for students or even as educational diagnosticians and clinicians. They can serve not only as instructors and coaches and guides but also as master knowledge workers to students who are their apprentices.²⁸ They can see their primary role as demonstrating to the young how the knowledge work of the twenty-first century is to be done. They can require students to do such work and assist students in this work. They can become more self-conscious, reflective, and public about what they do and how they go about doing it and then share the results of these reflections and refinements with students and with each other.

Teachers need to develop and nourish rich intellectual lives, and students, especially older students, need to be brought into those intellectual lives. One part of this intellectual life must surely be serious consideration of the motives students bring to the school and the ways schoolwork can be designed to effectively address and capitalize on these motives.

The Eclipse of the Traditional Family

Shift 6: From the two-parent family to the single-parent family and blended families.

Shifts in the structure of the American system of sex, marriage, family, and kinship are so important to school life and some of the effects of the changes so apparent that we sometimes look past the subtleties and fasten on to obvious. The obvious is important but so are the subtleties. I will not endeavor to trace the causes of these shifts here other than to observe that the development of the birth control pill; the loosening of family bonds, largely due to social conditions during World War II; the rapid development of the mass media; and such things as the women's liberation movement must surely have had some impact.

Prior to the 1950s, divorce was a relatively uncommon occurrence, and out-of-wedlock births were relatively few. Nowadays, out-of-wedlock births are common and divorce even more common. The single-parent family was a rarity in most schools; it is now commonplace.

These are obvious changes. Less obvious is the fact that many schoolchildren are participating in *blended* families, families that result from what some sociologists refer to as serial polygamy (the marrying of several mates, though never more than one at a time). After one or both of their birth parents remarries, perhaps more than once, these children may have three, four, or sometimes six or more adults who are affecting--or endeavoring to affect--their lives in ways available only to parents. In education, the blended family has received less attention than has the single-parent family, but its importance in students' lives should not escape the attention of serious educators.

For example, a court injunction denying a noncustodial parent access to his or her children without the explicit consent of the custodial parent can be upheld only if school personnel join in to enforce it. Yet a noncustodial parent with an ex-spouse who is punitive cannot keep reasonable track of the educational progress of his or her child unless school personnel find ways to communicate effectively with both parents.

Such situations are not easy to deal with; furthermore, they are wrapped in legal issues of

liability and fault. This leads to a great deal of timidity among educators when it comes to discussions of the special circumstances presented to schools by a rising divorce rate. Educators prefer to view divorce primarily as a child-care issue and to see their role as making counselors and supportive services available for the children (and sometimes the adults) who are undergoing the trauma of divorce. Certainly, such services are needed but so are clear policies and understandable practices for school personnel who must relate to and communicate with noncustodial parents, grandparents, and so on. New relationships between schools and the courts need to be forged and maintained.

The increased incidence of out-of-wedlock births also presents not-so-obvious problems to schools. It is now commonplace for schools to provide special programs for teenage parents. In the not-too-distant past a teenage girl "in trouble" was expected to leave school in some disgrace, and the boy who had fathered her child was "expected" to marry her. "Bastard" children were stigmatized just as their mothers (and sometimes fathers) were. It may be that the responses of earlier generations to the teenage sexuality and unwed mothers in their midst were misguided and harmful, but today's more thoughtful and humane approaches require schools to do things that many Americans, especially senior citizens and religious conservatives, persist in viewing as permissive and as shameful and disgusting.

What must be recognized is that changes in the family structure are a part of the larger set of changes in Americans' attitudes toward sex, marriage, family, and kinship. Fundamental transitions are occurring, and no one fully understands their dimensions. Is a child born out of wedlock an "illegitimate" child? Is the individual who engages in unprotected sex with multiple partners "promiscuous" or simply a "practitioner of unsafe sex"? When the school promotes discussions of safe sex is it confirming that sex with multiple partners or at least premarital sex is acceptable? What is the effect of discussions of "alternative lifestyles," by which is usually meant gay lifestyles? Issues such as these take up considerable organizational energy in schools and on school boards. They also stir up public passions that become focused on the schools even though the transitions that make them issues are located in the larger society. The fact is that when it comes to matters of sex, marriage, family, and kinship in America, the norms are not clear and what can and cannot be expected from parents and families is not easy to ascertain.

Realities such as these lead many educators to the sometimes comforting but always erroneous conclusion that whatever is wrong with the schools is beyond the control of the schools. Until families are stabilized and parents once again engage in appropriate child-rearing practices, there is little hope of significant improvement in student performance--or so some argue. Yet there is little prospect that the so-called traditional family will reemerge as the dominant form of home life for most children. In addition to the changes brought about by changing patterns of sexual relationships, there is the fact that more and more women are working outside the home and spending less time with their children. It seems likely that women are going to continue to pursue careers and that men are not going to stay home to substitute for them. The demands of the workplace will continue to compete with the demands of family life, if for no other reason than the separation of the place of work from the place where one rears one's family.²⁸

Therefore educators cannot turn away from these changes. Instead they must develop skills in identifying the diversity of views relating to family life, and school leaders--especially boards of education--must become more adept than they now are at reconciling these competing views.

One additional shift that may have profound implications for what occurs in the

classroom is a fundamental alteration in the structure of the two-parent family itself. The birthrate in America is declining, and one effect of this is that there are now proportionately more firstborn and firstborn-only-born children entering school than at any time in the past. Moreover, these children are likely to be from comparatively affluent homes.

Though the current research on birth order effects is less than instructive, it is safe to say that whatever effects birth order has will be magnified in the present entering student body and will be magnified further in the future. In addition, the change in the structure of two-parent families has numerous implications, most of which are unexplored by educators and reform advocates. Among the more important are the following.

First, parents of firstborn and firstborn-only-born children are more likely than other parents to be college educated. Their expectations about the kind of education they want for their children are also likely to be different from the expectations of parents who are less well educated. Parents of firstborn-only-born children and small families, affluent as they are, are well positioned to leave the public schools, since they have more money and fewer children to support. According to the Phi Delta Kappa/Gallup poll mentioned earlier, 39 percent of all public school parents would place their children in a private or parochial school if the government paid the tuition.³⁰ Those who have fewer children and are more affluent are less in need of supplemental support than are those with more children and fewer resources, therefore parents of firstborn and only-born children are more likely than other parents to be able to take advantage of generalized voucher plans and tuition tax credits in order to take their children out of the public schools.

Second, cross-age interaction has long been recognized as a powerful mechanism in support of education and socialization. Larger families with multiple children born at relatively short intervals have many more opportunities for such interactions than do single-child families or families with relatively wide ranges in age among their children. It is probably safe to say that there has never been a society in which age segregation is so well developed as it is in the affluent suburbs of America. Our graded school system once operated in a social context where family structures militated against age segregation; now it operates in a social context in which segregation by age is a common phenomenon. Consider, for example, the increasing numbers of housing developments for retired citizens that exclude children or at least discourage their presence. Schools must find ways to encourage cross-age interactions among students and also to reintegrate the young and the old.

Finally, it is sometimes unrecognized that the children of affluent and well-educated parents are almost always overrepresented in any parent group. Why? Because the single child in a two-parent family is represented by two parents, whereas the poor child's single mother may be representing the interests of three or four children. More than that, the affluent and well-educated parents are usually better equipped than the poorer and less educated parents to achieve positions of leadership among parents. Any school efforts to gain the support of parents must take such factors into account.

The New Competitors

Shift 7: From a society in which schools had little competition for the hearts and minds of children to a society in which powerful commercial interests are seeking to attract students to their wares, even at the expense of distracting students from schoolwork.

In the not-too-distant past, the family, the religious institution, and the school were the primary sources of intellectual, moral, and aesthetic experiences for children. This is no

longer so.

One of the consequences of the emergence of the information society, especially the revolution in publishing and in electronic communication, is that schools, parents, and religious organizations now must compete with the entertainment industry, the electronic gaming industry, and others for the attention and commitments of children and youths. Information considered inappropriate for discussion in a high school civics class is now openly discussed on television talk shows. What children and youths know today is no longer largely prescribed and proscribed by the intentions and desires of families, schools, and religious organizations. Rather, much of what students know and learn is presented to them by persons who view them as a market segment to be served, a set of customers to be attracted. And as each report appears that shows that youngsters watch a great deal of television and invest innumerable hours in playing computer games of little educational relevance and questionable moral content, educators, parents, and religious leaders lament the findings, but many do not know what action to take and simply throw up their hands in despair.

Unless educators learn to compete in this new environment, however, schools both public and private are likely to forfeit more and more of students' attention and their interest in learning to the educative (and miseducative) forces and sources that are emerging outside the context of schools, families, and religious institutions. What purveyors of entertainment like Disney and computer game makers understand and accept is that the children who use their goods and services are volunteers. Conversely, even though families, religious leaders, and school leaders have not always been in agreement about what and how children should learn, they have all subscribed to the belief that children should be subject to adult preferences in learning and consequently, as discussed earlier, have offered narrowly defined routes to academic learning. The mass media and the Internet have not submitted to the discipline of this myth. The consequence is that the traditional sources for the socialization of the young are increasingly impotent in the face of those who understand the young as customers.

In this competitive world, where traditional adult authority is suspect and options abound, students can be compelled to attend school, but they cannot be compelled to be attentive while they are there. Students can be compelled to comply and do enough to get by, but they cannot be compelled to be committed, self-directed, and self-controlled.³¹

This is not to say that students should decide what they need to learn. Rather it is to say that teachers and other school leaders could benefit from taking something like the attitude expressed by Sony cofounder Akio Morita when he wrote: "It is our plan to lead the public with new products rather than ask them what kind of products they want. The public does not know what is possible, but we do."³² Applied to education this statement might read, "It is our plan to lead students to new forms of schoolwork that they will find engaging and from which they will learn that which adults consider to be important for them to learn."

To be student centered is not to cater to student whims. Rather, it is to understand the students and the things that motivate them better than the students understand themselves and their motivations. It is also to understand how schoolwork, which I will define later as the primary product of the schools, can be designed to appeal to these motives and to push the limits of the possible so that this work is increasingly attractive and compelling to all students.

Mass Customization

Shift 8: From a society in which efficiency and standardization were greatly valued to a society in which quality, choice, and customization are core values.

The U.S. automobile business grew to greatness through standardization. Levittown offered few housing choices. However, in a shift beginning in the 1960s and accelerating during the 1980s and 1990s, Americans have become more concerned with quality, uniqueness, and customization than with standardization. Even McDonald's hamburgers, the original model of fast-food standardization, can now be customized. *Mass customization* is a new buzz word among business consultants and the authors of books for business leaders.

Much of the current drive for vouchers and for charter schools derives from the assumption that education can and should be customized as well. Furthermore, as schools are now organized, those schools that appear to be the most successful (suburban schools) are standardized to fit the needs of a group of children and families, the majority of whom share the same customs. However, such standardization does little to address the academic needs of those outside the majority, such as the children from nonacademically oriented families and the children of affluence whose parents are particularly ambitious for them.

On the one hand the conditions of democracy require that diversity be accommodated and responded to. On the other hand democracies require a commitment to a common set of values and a body of common experience that make it possible for this diversity to serve as a positive good rather than to lead to rancorous struggles that end in the worst cases in Balkanization, civil strife, and figurative if not literal "ethnic cleansing."

The mission of the schools as promulgators of a common democratic culture is not much talked about nowadays. Rather, the conversation is about education and its link to the economy or about the school as a cure for various social ills. Yet the American school system was initially established to define and communicate to the young a common culture. It is time for educators to revisit this original intent. Because the quest for a common culture can--as our history shows--also lead to cultural imperialism, in which the values of the dominant group become the yardstick by which each member of the community is measured, the question educators should investigate is this: How might the schools promote a common culture as they also create a value system that treats diversity as a common good? In answering this question, educators will not only address the issues associated with the demand for customization but will also address many of the issues arising as a result of the other shifts that are occurring in the social infrastructure on which our schools are based.

THE CHANGING TECHNOLOGIES OF EDUCATION

In addition to the implications of these eight seismic social shifts, educators need to understand the implications of the new technology. Just as social shifts require us to reconceive the organizations embedded in our society, technological changes should also spur structural changes in these organizations. The alternative is to allow our organizations to expel the technology or modify it so that it does not intrude into an organization's habitual life. For example, it is commonplace for schools to use computers as though they were typewriters, programmed textbooks, or calculators. It is, unfortunately, less common for schools to use computers to develop new forms of intellectual activity for students. One of the most important differences between organizations that continuously improve and those that do not is the way they respond to changes in the core technology that affect the way they do their core business. In the case of schools, once again, this business is to design work that students believe to be worth

doing.

Tools, Processes, and Skills

The first point it is useful to understand about any technology is that knowledge is affected by technology. Knowledge is based on and derives from information. Knowledge is information that has been processed in a way that gives the information meaning, coherence, and propositional qualities (that is, it can be used to explain and perhaps to predict and control). When prediction and control are required, scientific knowledge is to be preferred, but scientific knowledge is not the only form of knowledge of significance to humankind. Revealed knowledge, or knowledge believed to be revealed, has had at least as much impact on human history as has scientific knowledge. Craft knowledge transmitted from master to apprentice is often not codified, but it is important knowledge nonetheless, as are aesthetic knowledge regarding the beautiful and the ugly and moral knowledge regarding what is good and bad and what is right and wrong.

New information causes these forms of knowledge to change and evolve. For example, as the ability to extend human biological functions beyond the life of the brain increases, the question of when death occurs is much more than theological. It also a scientific question and a broad moral and ethical question whose answer must draw upon the great traditions--including religious traditions--that shape our culture and our thought.

Given the centrality of information to the knowledge work process and given the centrality of knowledge work to the conduct of the core business of schools, it is apparent that the technologies most important in the lives of schools are those that have to do with communicating, storing, retrieving, and processing information. Although educators now tend to use the word *technology* as a synonym for *electronic* means of communicating, storing, retrieving, and processing information, technology has a much broader meaning. *Technology is the means of doing the job, whatever the means and whatever the job may be.*³³

Schooling as an organized activity has existed for thousands of years, and it has used technologies since its inception. Those who work in contemporary schools employ technologies that have a long and distinguished history. The oldest technologies of teaching are storytelling, the dialogue, and the monologue (lecture). The invention of the technology of writing led to such advanced tools as the handwritten manuscript, which in turn required more skill (the ability to read) on the part of both teacher and student. The effectiveness of these technologies was highly dependent on the skill of the teacher and of the person turning out the technological tools. There were good storytellers, and there were bad ones. There were teachers who used dialogue to stimulate inquiry, and there were others who turned dialogues into inquisitions. There were scribes who were thorough, accurate, and diligent as they copied manuscripts, and there were others that were less so.

The invention of the printing press represented a basic shift in the technology of education and made it reasonable to contemplate overcoming two of the most intractable problems confronting educators--limited access to knowledge and variability in the quality of knowledge. Though purchasing a book or a pamphlet was still out of reach for most people, books were clearly more accessible and more widespread than were master storytellers or tutors. Furthermore, careful proofreading could reduce the random errors that were a feature of handwritten manuscripts. The printed word opened the possibility of universal education. Once the hardware (books, pamphlets, tracts, and printed lectures) was in place, two tasks remained. One was finding ways to ensure access to this

hardware. The community lending library, the paperback revolution, and the explosive growth of magazines are all illustrations of efforts to increase access. The other was to find ways to ensure that teachers possess the skills needed both to use the established technologies of schooling and to explore innovative ways of using the printed word for educational purposes. The creation of the graded reader like the graded school was, after all, a fundamental innovation in education. The encyclopedia, the textbook, and the infamous workbook are all technological innovations using the printed word.

Now we are facing a technological shift that seems destined to have effects on schooling even more profound than the effects of the printing press. Like the printing press, this technology is not simply an extension of or an improvement on existing technologies. It is different in kind, rather than in degree. This technology is the ability to electronically transmit, receive, store, and process information. Although this revolution has been underway for nearly a century in the form of radio and then of television and recording technologies, it is only now--with the arrival of such tools as computers, the Internet, portable and compact electronic audio and video recorders, and fiber optics--that educators are beginning to appreciate the implications of this technological revolution for the conduct of schools' core business. Moreover, it is becoming clear that if public schools do not have new tools based on this technology available, if processes to access these tools are not available, and if teachers are not skilled in using these tools, alternative organizations will arise that do have these tools, processes, and skills.

In short, technology is not a thing; technology involves three things: tools, processes, and skills. When tools are available but processes are not in place to make them available or the skills are not present to use them effectively, then the technology is not present. For example, there are many schools where the overhead projectors go unused because no one has thought to create a process for replacing burned-out bulbs quickly and efficiently, that is, for having available both the bulbs and someone who knows how to replace them. Operationally speaking, a school does not have an overhead projector until it has processes and skills in place to make it work. Similarly, in schools where textbooks are available but many students cannot read them, the textbooks are effectively not available to these students. Even the Internet is unavailable to such students because very little on the Net is useful to those who cannot read. Simply choosing links to follow requires a reasonable level of literacy.

Frozen in Time

When the printing press was invented, it was first used to reproduce the old manuscripts that had formerly been laboriously reproduced by hand. It took some time for people to realize the printing press could also produce newspapers, pamphlets, tracts, and books newly written for popular consumption. When any new technology comes on the scene, it is generally the case that people first use it to do old work in new ways. It is only after considerable experience that the potential of the new technology for creating new forms of work and producing new and different products is explored.

Moreover, established organizations are usually among the last to explore the possibilities of new technologies, especially when these technologies affect the way their core business is conducted. The consequence is that when there is a major technological revolution that goes to the heart of an industry or enterprise, it is likely that new organizations will arise to exploit the technology, especially when the existing industry is typified by ineptness in leading and managing change.

In the modern school, the printed word, in the form of books (especially textbooks) is assumed to be the core technology that must be mastered, both by the teacher and by

students. It goes without saying that students who do not develop the skills necessary to master this technology (that is, those who do not learn to read) have real difficulty in benefiting fully from their experience in school. They will also have difficulty in later life, for the keys to access to the most important technologies in advanced societies are the skills associated with reading. That is why reading is viewed as a *basic skill*.

Television, computers, video recording, radio, and CD-ROMs all make available to educators new forms of technology that go directly to the core business of schooling. Yet past efforts by educators to use radio and television for educational purposes illustrate how existing organizations are likely to misuse or underexploit new technology. Certainly, a person who delivers mediocre lectures in the lecture hall will do no better or be any less boring on the television screen. Even recording and storing a lecture that is excellent in the classroom setting given the interaction between students and teacher and making it available via an electronic medium is not an adequate use of the new technology. What those who use electronic media with effect understand is that when the one-on-one relationships through which students can become engaged with the instructor as well as the subject of instruction are lacking, one must find other values that will lead to students' engagement with the subject. It is for this reason that the Discovery Channel attends to entertainment values whereas many educational channels offer little more than talking heads. Indeed, educational uses of television, especially in classrooms, have frequently been so unimaginative that the term *educational television* has come to be associated with words like *boring*, *unexciting*, and *humdrum*.

It can be argued with some justification that the reason schools and teachers do not use television as it might be used is that schools do not have the resources to do so. Yet, having observed that student television productions often manage to have many of the communication values contained in the best of commercial television, I have come to the conclusion that the problem with introducing new information-processing technologies into the schools is more than a hardware, or tool, problem. Rather, the problem is that schools lack a sufficient number of people with the skills needed to use the tools imaginatively, and those who do have the needed skills are seldom in a position to employ their skills in ways that benefit students most. For example, although school district media specialists are often capable of providing well-done television productions to support presentations the superintendent wishes to make to school boards and communities, I have seldom seen such support made routinely available to teachers. Neither have I often found these talented producers working directly with students to aid them in developing their skills at communicating with the new technology. Even those students who are already skilled in the use of computers and television, and there are many of them, seldom work with their teachers as they are learning content to produce quality presentations about that learning for later use.

The result is that the de facto education of children is moving from the classroom to the production centers of cable television channels and recording studios and to those who are bent on exploiting the entertainment values of the new technologies rather than their educational values.

For schools to exploit new technologies properly and recapture the attention and commitment of students, old systems must change. New systems must be prepared to change the way time, people, and space are organized and the way information and power are distributed. The rules, roles, and relationships shaping organizational behavior that were appropriate to schools in which lectures and books were the prime technologies must be changed to rules, roles, and relationships that can also fully exploit the new technologies that are emerging. To change these rules, roles, and relationships (to restructure) leaders must also change the system of shared beliefs, meanings, values, traditions, and lore (in short, the culture) in which these structures are embedded. It is the

failure to appreciate the linkage between structure and technology and the linkage between systems and programs that leads to the failure of change efforts in schools, just as it does in business.

Among the primary tasks of leaders are to identify the technologies that are essential to the organization's core business, and to endeavor to provide the tools, processes, and skills needed to employ these technologies. That means it is the task of leaders to see to the development, control, and continuous improvement of the processes associated with the effective use of these technologies and to develop in themselves and in others the skills needed to control these processes and to use the tools effectively. The key to continuous improvement is that teachers have the skills to use a variety of technologies and therefore the ability to choose among competing technologies. Knowing the conditions that define a particular educational situation and understanding the business of schools, they should be able to determine the most effective and efficient means of doing the job they need to do. Leaders must ensure that these means are available and accessible.

To accomplish these tasks, educational leaders, like leaders in business and industry, must also develop new understandings. The understanding they most need is that which emerges from endeavoring to answer the questions: What is our business, and what must we do to do this business well?

CONCLUSION

American society has, over the past fifty years, undergone a "great mutation."³⁴ The world of the year 2000 is less like the world of 1950 than the world of 1950 was like the world of 1850. Indeed, it was the seemingly placid 1950s that put in place many of the revolutionary forms that have shaped our present context.³⁵ The portable phonograph was created, television became commonplace, the suburbs began to emerge, and race-based urban ghettos became increasingly common features in the life of America's cities.

In addition, federal activism in school programs and policies began. Then, inspired by the need for economic development in their states, governors in the Southeastern United States, governors like Bill Clinton of Arkansas, Richard Riley of South Carolina, Lamar Alexander of Tennessee, and William Winter of Mississippi, placed education and school reform high on the agenda of state legislators. All of this has occurred in a context where the mass culture, supported by the entertainment industry, has become increasingly focused on the so-called youth market and increasingly effective at competing for the time and attention of children and youths. The diversion of the Mickey Mouse Club has evolved into the Disney empire and the relatively harmless wiggles and squiggles of Elvis Presley on the *Ed Sullivan Show* have evolved into nihilistic hard rock and rap music that celebrates violence. Mickey Mouse has become Beavis and Ward Cleaver has become Bart Simpson.

It is in this dramatically altered context that educators must now work, and the work they do must produce more and different results than have ever before been expected of America's public schools. Moreover, the students who attend America's high schools today are generally further from meeting citizen and employer expectations than was the case for students fifty years ago, even though today's students in general are probably academically more well prepared than were past generations. This leads to increasing dissatisfaction with the schools. And this dissatisfaction must be of urgent concern to educators.

Although the public expects it, no school district has yet been able to ensure that nearly

all students learn to read with comprehension, compute swiftly and accurately, and write well, let alone master algebra, chemistry, physics, and a second language. Until these expectations can be met, or demonstrable progress is made toward meeting them, public disaffection with the schools is likely to grow. To meet such expectations, the public education system must undertake changes much more radical than called for by those who would "break the mold." Indeed, compared to the needed changes, most efforts to "break the mold" have done little more than crack some china.

School leaders must begin working to meet these expectations. They must also confront the bewilderment and lack of a sense of urgency that typify much of the in-house conversation among teachers and school leaders regarding the troubles that beset the schools. They must confront the perception of many educators that they are helpless and misunderstood victims and help them see that they must become leaders of a crusade to save public education in America. They must confront the loss of community and recognize that schools are the one institution that is positioned to build the communities we so desperately need if our civic and cultural life is to be enriched and our economy is to be sustained. In a world where religious conservatives demand that the value of abstinence be taught and liberals in the health care community want condoms distributed in the high schools, it is sometimes difficult to remember that schools were established to promote a common culture. In a world where parents of children with learning disabilities have successfully lobbied to have their children fully integrated into the classroom but nearly two-thirds of parents with children in public schools and 70 percent of parents with children in private schools disagree with this policy, it is difficult to remember that the public schools owe their existence to the assumption that all citizens have a common interest in the well-being of all children, not just their own children or children like them.

As a person who has labored for nearly forty years in the effort to reform America's system of education, I find it painful to write an appraisal like the one I have presented here. Yet I and others who still believe that public schools are vital to the survival of American democracy and the fulfillment of the American dream must acknowledge that schools do have many real problems and that public perceptions about the schools are also real in their consequences. In the following chapters, I provide educators with some tools they may use to change perceptions and to address problems caused by new demands on the schools, seismic social shifts, and the technological revolution.

To fail to rise to this challenge is to lose public education--and perhaps our democratic way of life as well. To look to forces beyond the control of educators as excuses for the failure to respond is defeatist. What is needed in this time are educational leaders of nearly Churchillian stature, men and women who, when confronted with seemingly overwhelming odds, believe and can inspire others to believe that this can be American educators' "finest hour." My hope is that this book offers the support and encouragement school leaders need to achieve not only their finest hour but their day and their century.