

Reinventing Education and Saving Our Children and Our Planet

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A global vision for reinventing education requires a futurist perspective. The futurist perspective is the most interdisciplinary approach to the constant changes in all scholarly fields. Revisiting of the model of holistic education will provide the best benefits to humankind's future. Rethinking the current educational, cultural and economic paradigms will be necessary if for no other reason than the pace or speed of technological change and related environmental consequences. Ironically, virtually all other sectors of global society are changing constantly in the face of globalization, technology and media culture. Only education, especially higher education, seems to lag. Education and philosophy need to lead and inspire political culture rather than lag. An integrated curriculum is urgently needed to help tomorrow's students build healthy body/minds, families, worklives, governments and communities and also to give themselves a clearer understanding of the possible human. Reinventing education would place philosophy, futurism and interdisciplinary studies at the center of a new liberal arts core that would no longer be enslaved by economics. In the end, the entire human family would be involved in a lifelong journey of holistic education including a continuous, life affirming dialogue between all age groups, cultures and with nature itself. Perhaps, it is time to revisit the works of visionary futurists who have called for holistic education to produce higher consciousness and human evolution as the true goal of human kind.

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In reinventing education for the 21st century we must both help our children cultivate their full human potential while preparing them for global citizenship based on accepted ethical, democratic, and ecological principles.

Yet, first, we must examine three major (U.S.-driven) trends that are sabotaging these essential education goals: exclusionary high stakes tests and standards, high-tech, computer-driven education, and (corporate) commercialism in our schools. Another long-standing and damaging condition in the public schools of most nations is the class-based misinformation and myths that distort both history books and youthful minds and characters (Loewen, 1995).

Narrow economic and political agendas, and not children's human needs and multifaceted potentials, are dominating the public discourse and policies shaping the educational future of the United States. In the mid-1990s President Clinton, while proclaiming that the main purpose of education is to prepare kids for the (low-wage) global economy, proposed "Goals 2000: Educate America Act," which now gives the federal government (and megacorporations) sweeping power and influence over American education through national tests and standards (R. Miller, 1995),

Educational Freedom for a Democratic Society: A Critique of National Goals, Standards, and Curriculum is a groundbreaking collection of writings by 16 academics, educators, and parent activists representing diverse perspectives. Editor Ron Miller (author and founder/editor of *The Holistic Education Review*) states that:

"From a rich and complex range of possibilities, the agenda of national standards arbitrarily and heavy-handedly determines which fields of knowledge, which kinds of learning, and which moral visions of education shall be imposed on all communities, all families, and all children. In this Republican/corporate/fundamentalist era of cultural 'restoration,' as it has been called, policymakers favor traditional subjects (including a patriotic reading of history and an emphasis on the Eurocentric literary canon), 'basic' skills, technological literacy, and rugged classroom discipline over more progressive and holistic educational possibilities such as multicultural and antiracist education, ecological literacy, peace education, emotional literacy, creative and artistic expression, critical pedagogy, and constructivist, interdisciplinary ways of teaching" (R. Miller).

Commercialism in the Classroom

A recent Government Accounting Office report concludes that corporate marketing in public schools is rising sharply (Hays, 2000). Marketing executives and Wall Street investment bankers are now targeting the \$619 billion education market and seeing Home Depot and McDonald's as "models for school-management companies to embrace" (Kane, 1996).

Everyday throughout the nation more than 12,000 schools (about 40% of our high schools) begin their homerooms with news and commercials transmitted by Channel One which rakes in close to \$800,000 a day (Jacobson, 1995). One media critic points out the hidden lessons including - "don't think," it's cool to be an idiot; "let us fix it" (commodities can solve all our problems); "eat now" (lots of ads for drink and munchies); "you're ugly" (and need more products); and addiction 101 (M. Miller, 1997). A 1998 study, "The Hidden Cost of Channel One," concludes that lost class time costs taxpayers \$1.8 billion a year (Armstrong & Casement, 2000).

Hundreds of budget-squeezed school districts are also signing multi-million-dollar soft-drink contracts and becoming virtual sales agents for Coke and Pepsi. Many schools are bombarded with classroom packets promoting junk food like Hershey's chocolate. A Prozac representative gave a talk at a high school assembly on National Depression Screening Day (Stead, 1997). Corporate logos are fully displayed on textbook covers. And, Zap Me offers schools free computers with flashing ads and collects information provided by students for advertisers including Microsoft and Toshiba which supply the computers (Hays, 2000).

Once corporations have bribed their way into the classroom, "they present their own versions of facts, issues, and history." For instance, Weyerhaeuser, the timber industry giant, has a teacher's guide to forestry based on questions such as "what innovative practices has Weyerhaeuser introduced in recent years?" (Jacobson, 1995). Consumers Union, publishers of Consumer Reports, did a study of commercialism in schools, "Captive Kids," in which they analyzed 111 "sponsored educational materials." Roughly 80% contained blatant bias, commercial pitches, inaccuracies, or, quite often, all three (Selcraig, 1998).

Corporate commercialism is also penetrating higher education on many levels. Award-winning investigative scholar Lawrence C. Soley, in his groundbreaking book *Leasing the Ivory Tower: The Corporate Take-over of Academia*, argues that the real story about academia, contrary to conservative critics and media, is not "political correctness."

"The real story is about university physics and electrical engineering departments being seduced by Pentagon contracts; molecular biology, biochemistry, and medicine departments being wooed by drug companies and biotech firms; and university computer science departments being in bed with Big Blue and a few high-tech chip makers. The story about universities in the 1980s and 1990s is that they will turn a trick for anybody with money to invest; and the only ones with money are corporations, millionaires, and foundations. These investments in universities have dramatically changed the mission of higher education; they have led universities to attend to the interests of their well-heeled patrons, rather than those of students" (Soley, 1995).

The Center for Commercial-Free Public Education in Oakland, California, has been reporting on classroom commercialism, supporting concerned teachers and parents, and developing initiatives like a Community Assistance Program to work directly with School Board Members on developing guidelines that protect their schools from advertising.

Computers in the Classroom

Computer literacy is important for older children, yet computers are driving curriculum and instruction and becoming a mechanism for total social control, the whole child fragmented and more disconnected from human interactions, poorer students a technological underclass, and teachers technologically unemployed. A child's mind does far more than merely process information from disconnected, decontextualized streams of digitized data or glitzy graphics.

Billions of dollars are being spent on technology (computers and television) in the classroom; yet, writes education activist Douglas Noble, "except for a few futuristic demonstration projects, all of this money and hardware has had an insignificant effect on educational practice in the nation's schools." In 1992 Steven Jobs CEO of main supplier Apple Computer wrote that "What's wrong with education cannot be fixed with technology. No amount of technology will make a dent." There is evidence, however, that low-income children (Armstrong & Casement, 2000) and children with various sorts of learning differences or handicaps can benefit from remedial technology (Healy, 1998).

The negative effects of technology on children are becoming more evident according to various experts and studies cited by Healy and

Armstrong/ Casement: for instance, television can be a major factor in delaying speech development in children under three; and too much electronic stimulation may contribute to more learning disabilities such as auditory-processing problems, attention deficit disorder, and the deterioration of listening skills, motivation, imagination, creativity, and performance in schools.

Children, who are using computers at increasingly earlier ages and for longer durations of time, are also at greater risk of visual problems, epileptic seizures, obesity, and musculoskeletal disorders in the back, neck, and shoulders since computer workstations are simply not made to fit the size and shape of a child's body (Armstrong & Casement, Healy).

In order to fully develop, children require physical activity and rich social interactions in the real world. Yet, according to an American Medical Association report, "the amount of time spent in front of a television or video screen is the single biggest chunk of time in the waking life of an American child" (Armstrong & Casement).

Further serious problems with technology-driven education include software "tools" that are "disappointing at best and abysal at worst," computer theft, unsupervised children preferring "glitzy graphics" to real problem-solving, a mere 15% of U.S. teachers receiving at least nine hours of training in educational technology, lack of classroom infrastructure (many schools need additional power or rewiring), and prohibitive costs.

The President's Committee of Advisors on Science and Technology estimates that the cost of networked computers (at a 1 to 5 student ratio) in all of the nation's classrooms would be an initial \$47 billion, plus \$14 billion to maintain the equipment. Annual training and support for teachers would cost another \$1 to \$2 billion (Armstrong & Casement, Healy). Billions of dollars spent on computers also means that already budget-squeezed schools will have far less money for essential improvements (building repairs, teacher training, field trips, better libraries and arts programs, etc.).

Judah Schwartz, co-director of Harvard's Educational Technology Center, warns that that because computer technology is more powerful than that of books, "it will be much worse if used badly than books, and will be much more effective in doing damage" Thus, true computer literacy would teach children (as well as teachers and parents) when it is appropriate to use technology (Armstrong & Casement).

Long-time educational psychologist and professional educator Jane Healy devotes more than 20 pages of her book *Failure to Connect* to re-

viewing educational applications and software as well as how technology can be effectively integrated in schools (Healy).

High-Stakes Tests and Standards

High stakes standardized tests, which have little predictive value of academic performance, future success, intelligence, or character, emphasize trivial knowledge and low-level cognitive skills, allow less time for general curriculum and indepth study, undermine creative teachers, reflect class and gender biases, and punish low achieving schools. Most employers ignore these test results and even the well-regarded S.A.T. has already been dropped as a requirement for admission by some 280 colleges (Schwartz, 1999).

In an annual survey this year by the Texas State Teachers Association, 43% of respondents said they were "seriously considering leaving the profession because of low pay, poor benefits, and stress," including in some cases frustration over the test (Yardley, 2000).

The NY Times has reported that more tests mean more competition between schools, more cheating, more fraud, and more cover-ups (Frantz & Nordheimer, 1997). In a survey of high school students (the 29th "Who's Who Among American High School Students"), 80% of students admitted to cheating in order to get to the top of their class. In the past two years schools in eight states have investigated reports of improper or illegal attempts by teachers, principals, and other administrators to raise test scores. Employment, salary increases, and promotions are more and more dependent on demonstrating rising scores. Initiatives like that of California Governor Gray Davis, who will pay teachers \$150 for each test score in their class that goes up, "are all but certain to produce consequences that are intellectually and ethically degrading" (Shapiro, 2000). Superintendents in some districts can receive bonuses as high as \$25,000 depending of test scores (Yardley, 2000).

In late 1999 the *NY Times* reported that in several states as many as 90% of the schools and 90% of the students failed the tests with many being held back or dropping out of school. Some of these students, especially young black males with little education and few marketable skills, turn to a life of crime which in part explains why with over 2 million behind bars the U.S. has the highest rate of incarceration in the industrialized world. Many of these (mainly poor, inner-city) schools have either been closed down or taken over by the state or by a private for-profit

company. Noted social critic Alfie Kohn in "The Case Against Standardized Testing" asserts that "tests are cheating students and the pressure for scores shoves good teaching aside" (Kohn, 2000).

Parents and teachers, who are becoming sharply critical of tests which will soon bar many deserving students from promotion or graduation, are part of a growing nationwide backlash against new high stakes standardized tests. A boycott of the Michigan high stakes test has reached 90% in some school districts. In Virginia a school board member has signed up 1000 people against the Virginia test. The New York City Board of Education had to cancel a second grade reading test due to an avalanche of complaints even from principals. In Chicago high school students intentionally failed the test and then organized a demonstration outside the board of education offices. At Danvers High School in Massachusetts, students organized a petition in protest of the tests (Spritzler, 2000).

Political and corporate agendas are pushing these dangerous reforms. A report by Rethinking Schools, a grass-roots, Milwaukee-based organization of teachers, parents, and education activists - "Testing: Full Speed Ahead" - reviews the October (1999), IBM-sponsored Education Summit of governors, business leaders, and the top-tier of state educators (no principals, teachers, students, or members of Latino or Asian advocacy organizations were invited).

As the report concludes, the standards and accountability movement is directed by governors, corporate leaders (like Louis Gerstner of IBM who, as CEO of RJR Nabisco, introduced the Joe Camel campaign to hook teens on smoking), and heavily influenced by conservative ideologues and think-tanks (Miner, 1999). In a final policy statement at the end of the earlier 1996 corporate-sponsored Education Summit, the governors committed themselves to developing "internationally competitive academic standards" in their states and the tests and accountability systems to make them work (Applebome, 1996),

John Spritzler, of Harvard's School of Public Health and editor of the magazine "New Democracy," laments that "millions of young people are being set up for failure, and successful and unsuccessful students alike are being told that education consists of changing oneself to meet the needs of the corporations. Privatization, raising standards, 'school to work,' school-based management, assaults on teacher tenure, merit pay, and other programs are intended to make public education more stratified and more intensely competitive, and to force students to accept their places in a more unequal, less democratic society."

Spritzler adds that "high stakes tests are being imposed in state after state in the U.S. and around the world as part of corporate-led education reform. Countries in Latin America are being required by the World Bank and the International Monetary Fund (IMF) to impose education reform and high stakes tests as a condition for continued loans. South Korea, Indonesia, and other Asian countries have embarked on similar testing programs" (Spritzler).

Several groups and individuals, including Project Zero at the Harvard Graduate School of Education, have developed alternative modes of evaluating student performance. Moreover, dozens of studies offer convincing evidence that children in poor schools make academic gains when they have access to quality early-childhood education programs, when they are taught in small classes by skilled and committed teachers, and when they are given assessments linked to appropriate and immediate responses. The single most important factor in raising academic performance in poor schools appears to be the presence of experienced, competent, and caring teachers (Orfield & Wald, 2000).

Multiple Minds & Holistic Education

Leading education theorists like Harvard's Howard Gardner recognize that we all possess multiple minds and intelligences, and ways of learning and knowing. We indeed learn through all of our senses, including the interpersonal (social), the intrapersonal (soul), and ecological senses. We learn through interacting with nature, cultivating compassion and community service, and through meditation and other contemplative disciplines.

The philosophy of holistic education aims to create an educational system which, as the late P.R. Sarkar observed, would "encourage children to identify themselves as human beings" thereby alleviating divisive tendencies in the world. Ron Miller, author and former editor of *Paths of Learning: Options for Families and Communities*, describes four basic principles of holistic education.

First, holistic educators believe that humans are complex entities composed of a multitude of different layers of meaning that interplay in rich, creative ways. We are biological and ecological creatures with psychological and emotional dimensions and a spiritual core. We live in an ideological, social, and cultural environment. Philosopher of religion Huston Smith reminds us that spirituality in education begins with knowing who we are.

Second, human development occurs in at least two spheres: the personal and the universal or spiritual realms. Educators need to recognize that children grow through specific stages of development, but that each child develops at a different rate. Education is about transformation and evolution, not merely the transmission of cultural facts and skills.

Third, holism and spirituality are not otherworldly. Spirituality must embrace democracy, social justice, and the healing of hatred and racial and class oppression within a sustainable and nourishing relationship to the biosphere. We inhabit a social and cultural reality that is part of our identity and must be addressed directly. We also need to confront the mechanization and standardization of children's souls.

Fourth, holistic education is the art of cultivating meaningful human relationships. Within a community of learners, it is a dialogue between teacher and student. It is deep connection on all vital levels and the mutual creation of meaning. This is the heart of education (R. Miller, 1995; Glazer, 1999).

This fourth principle recognizes trans-generational communication as part of the complex communication process that sustains the culture's diverse ways of knowing and forms of relationship. The accumulated wisdom of elders, as well as women and other marginalized groups like Native Americans, constitutes a community of memory which is really the storehouse of proven knowledge, technologies, moral understandings, modes of thanksgiving and celebration, narratives and communal practices that enable youth to understand and experience the connectedness of life forms, and help develop personal values and skills that do no harm to the environment (Bowers, 1994).

New Assumptions and Types of Knowledge

According to Ed Clark, educational consultant specializing in integrated curriculum design and site-based educational change, education in the 21st century needs to be based on at least four fundamental assumptions that are consistent with both 20th century science and the perennial wisdom of the ages. First, we live in a universe where everything is connected to everything else; metaphysically, all sentient beings are brothers and sisters. Second, all human life, and higher forms of animal life, have innate potential and intelligence that need to be cultivated and brought forth.

Third, genuine learning requires a systems, or "big picture," perspective which means "you know how to learn what you need to learn, when you need to learn it." Fourth, since we are all fundamentally social beings and members of various communities, learning must be a cooperative, not just an individualistic and competitive, process. The perfect model for a learning community is an ecological community, like a forest, in which "individuals, species, and the community as a whole, learn, change, and grow" (Clark, 1997).

Clark also affirms that holistic education cultivates four types of knowledge. *The knowledge of whole systems* in that all living systems are intrinsically ecological systems where all parts are mutually related and serve the needs of the whole system. *Knowledge of fundamental principles and concepts that govern all living systems* provides powerful cognitive bridges where learning can be transferred from one arena to another. *Intuitive knowledge*, the source of imagination and creativity, is the capacity to tap into the collective unconscious, archetypal wisdom, and direct knowledge of the world. *Contextual knowledge* is the knowledge of patterns and relationships which enable us to explore, understand, and create contexts of meaning.

The Arts of Learning and Democracy

In schools across America computer labs are replacing arts and music classes. Yet, there is growing evidence that cultivating children's self-expression and communicative skills through arts programs promotes multiple forms of learning and intelligence - kinesthetic, intuitive, emotional, intrapersonal, and interpersonal - as well as enhancing moral and social development and school performance while reducing serious behavioral problems.

In the U.S. many parents, misguided by constant cultural messages of "salvation" through computer-driven commerce, science, and technology, believe that arts programs are merely frills compared with European countries such as Sweden, Italy, and France which routinely provide children with art lessons and high-quality artist materials (Armstrong & Casement, 2000).

Investigators Armstrong and Casement found that the vast majority of software available for children caters to what is perceived as a child's need for some kind of immediate result, regardless of the energy expended. Whereas learning to draw or play the cello requires initiative, consider-

able energy, and self-discipline (ibid.) as well as providing the opportunity for a child (or adult) to gain deeper personal satisfaction, self-mastery, and enhanced self-esteem.

The arts provide far greater opportunities for interactive learning and critical thinking skills than anything a child will receive from a computer. A study of second and third graders in a rural Rocky Mountain region found that the children who took part in drama or drawing activities produced writing that was "consistently and significantly different" in quality from the writing of children who had been part of a discussion group (ibid.).

In another study children wrote far more imaginative and original endings when they listened to the story than when they watched it. This is because when students listened to the story they created their own images - their minds were not cluttered with someone's else's as happens when watching television or computer images (ibid.).

Slow learners also benefit from the arts as demonstrated at the Music School in Providence, Rhode Island, where 5 to 7-year-old underachievers who were in a special arts program when tested caught up with the other children in reading and soon outperformed them in math (ibid.).

According to the College Entrance Examination Board (CEEB), the SAT administrators, children who receive arts instruction score significantly higher on verbal and math tests than students who take no arts courses. The Different Ways of Knowing program, launched by the Galef Institute of Los Angeles, found that children in four schools in the Los Angeles area, Boston, and Cambridge, Massachusetts, improved their language skill test scores after one year and that after three years in the program took home "significantly higher" report card grades in language arts, math, reading, and social studies (ibid.).

In his book *Strong Arts, Strong Schools*, Charles Fowler documents dozens of cases where the arts have both transformed and renewed schools. Fowler contends that:

"Because the learning environment is stimulating and personal, violence and discipline are not a problem. My observations in schools are that drugs, crime, hostility, indifference and insensitivity tend to run rampant in schools that deprive students of instructions in the arts. In the process of overselling science, mathematics, and technology as the panaceas of commerce, schools have denied students something precious: access to their expressive communicative beings and their participation in creating their own world. In inner-city schools that do not offer instruction in the arts,

the students have little pride and less enthusiasm, and such deprivation saps their lives of vitality and potential" (Fowler, 1996).

The arts also contribute to the cultivation of emotional literacy and emotional intelligence which further character development a foundation of democratic societies. As Daniel Goleman points out in his book *Emotional Intelligence*, these skills include the ability to put aside one's self-centered focus and impulses, empathy, real listening, taking another person's perspective, and increased tolerance. Empathy leads to caring, altruism, and compassion. These are basic arts of democracy (Goleman, 1995; Lappe & Dubois, 1994).

Ecoeducation and Ecological Intelligence

The new paradigm sees the natural world as the primary educator (Swimme & Berry, 1992) and that a critical education goal is the creation of an ecological ego to heal the destructive alienation between humans and nature. For ecopsychologists, repression of the ecological unconscious is the deepest root of collusive madness in industrial society; open access to the ecological unconscious is the path to sanity. Sources include nature mysticism as expressed in religion and art, the experience of wilderness, and the insights of Deep Ecology (Roszak, 1992).

In *Ecotherapy: Healing Ourselves, Healing the Earth*, Howard Clinebell asserts that it is crucial in ecoeducation to teach methods of holistic peace-making including nonviolent conflict resolution in families and between ethnic and religious groups, as well as between nations. Long-term there is no way to save the environment unless the human family eliminates war and the resource-squandering global preparations for war-making. Ecoeducation should also enable people to understand that their own well-being depends fundamentally on the well-being of the whole, interdependent ecosystem. A biocentric perspective is the foundation of biophilia, meaning love, respect, and reverence for all living things (Clinebell, 1996).

Earth literacy must enable learners to re-vision "progress," "growth," and "development" ecologically so that these human aspirations will become sustainable, meaning that basic needs of all people today are met without robbing future generations of the same opportunity (ibid.).

An Evolutionary Model of Partnership Education

Developed by Riane Eisler, cultural historian and president of the Center for Partnership Studies, partnership education has begun to grow in U.S. schools. Drawing from *Darwin's Lost Theory of Love* (Loye, 2000) and empirical evidence that our human strivings for love, beauty, and justice are just as rooted in evolution as our capacity for violence and aggression (i.e., the warrior, "dominator" ethic), partnership education can be a bridge between science and authentic spirituality and morality.

Eisler and other scientists emphasize that human evolution is now largely contingent or dependent on what kind of family, social, economic, and cultural system we fashion. The partnership model - which supports and rewards caring and caretaking and is structured primarily around linkings based on the exchange of mutual benefits as well as hierarchies of actualization rather than domination - is more in tune with the trend in evolution toward mutual aid, empathy, and love.

The partnership process is a way of teaching that models and supports partnership relations, honors diverse learning styles, makes each child feel seen and cared for, promotes teamwork, and lends itself to self-directed learning. "Urgently needed, an integrated partnership curriculum not only helps today's and tomorrow's children build healthy bodies, psyches, families, businesses, governments, and communities but also gives them a clearer understanding of our human potential, our place in history, our relationship to nature, and our responsibility to future generations" (Eisler, 2000).

In the end, the entire human family would be involved in a lifelong journey of holistic education and living which would include a continuous, life-affirming dialogue between all age groups, cultures, and nature (Whitty, 1999).

Notes

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