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Empathic Education: The Transformation of Learning in an Interconnected World

By Jeremy Rifkin

With the passage of health-care reform, President Obama has turned his attention to reforming education in America. In his State of the Union Message, he called for a significant increase in support for his "Educate to Innovate" campaign, which puts renewed emphasis on science, technology, engineering, and mathematics to ensure "our nation's economic competitiveness." The goal, according to the White House, is to equip every student with the knowledge that he or she needs to become a productive worker in the global economy.

Maybe it's time to ask the question of whether simply becoming economically productive ought to be the primary mission of American education. Shouldn't we place at least equal attention on developing students' innate empathic drives, so that we can prepare the next generation to think and act as part of a global family in a shared biosphere?

The biosphere is the narrow band, from the ocean floor to outer space, where living creatures and the earth's geochemical processes interact to sustain one another. We are learning that the biosphere functions like an indivisible organism. The continuous symbiotic relationships between every living creature and the geochemical processes are what ensure the survival of the planetary organism and life on earth. The issue of what kind of education students should be getting is particularly relevant today, as humanity attempts to cobble together a sustainable global society in time to avert potentially catastrophic climate change.

When we talk about revolutionizing the way our students learn, we must understand the larger context that sets the framework for fundamental changes in our notions about education. Ultimately, our ideas about education flow from our perceptions about reality and our concepts of nature—especially our assumptions about human nature and the meaning of the human journey—which become institutionalized in our educational processes. What we really teach, at any given time, is the consciousness of an era.

For example, at the dawn of the modern market economy and nation-state, Enlightenment philosophers—with some exceptions—saw people as rational, autonomous agents, driven by utilitarian desires and material interests. To bring out those qualities, educators established an educational system along the same lines.

Unfortunately, our system today is still largely mired in those outdated assumptions. The classroom is a microcosm of the factory system, market forces, and nation-state governance. Students have been taught to think of "knowledge as power" and to regard learning as an asset one acquires to advance one's material self-interest. The educational process emphasizes autonomous learning—sharing knowledge is considered cheating—and the mission is to produce efficient and productive workers for the market economy. While those Enlightenment assumptions have provided the intellectual motivation and justification for a vast expansion of wealth for many people, they have also left the earth's ecosystems in shambles, with ominous consequences for our species' future.

Of course, we know that the ideas espoused in the Enlightenment are not set in stone. Great changes in human consciousness occur when new, more-complex energy regimes arise, making possible more-interdependent and complex social arrangements. Coordinating those civilizations requires new, more sophisticated communications systems. When energy regimes converge with communications revolutions, human consciousness is altered.

All forager-hunter societies were oral cultures, steeped in mythological consciousness. The great hydraulic agricultural civilizations were organized around writing and gave rise to theological consciousness. Print technology became the communication medium to organize the myriad activities of the coal- and steam-powered first Industrial Revolution, 200 years ago. Print communication also led to a transformation from theological to ideological consciousness during the Enlightenment. In the 20th century, electronic communications became the command and control mechanism to manage a second industrial revolution, based on the oil economy and the automobile. Electronic communication spawned a new psychological consciousness.

Today we are on the verge of another seismic shift. Distributed information and communication technologies are converging with distributed renewable energies, creating the infrastructure for a third industrial revolution. In the 21st century, hundreds of millions of people will transform their buildings into power plants to harvest

renewable energies on-site, store those energies in the form of hydrogen, and share electricity with one other across continental grids that act much like the Internet. The open-source sharing of energy will give rise to collaborative energy spaces, not unlike the collaborative social spaces on the Internet.

The third industrial revolution paves the way for biosphere consciousness. When each of us is responsible for harnessing the earth's renewable energy in the small swath of the biosphere where we dwell, but we also realize that our survival and well-being depend on sharing our energy across continental land masses, we come to see our inseparable ecological relationship to one another and our fellow species.

That new understanding coincides with discoveries in evolutionary biology, neurocognitive science, and child development that reveal that people are biologically predisposed to be empathic—that our core nature is not rational, detached, acquisitive, aggressive, and narcissistic, but affectionate, highly social, cooperative, and interdependent. *Homo sapiens* is giving way to *Homo empathicus*. Historians tell us that empathy is the social glue that allows increasingly individualized and diverse populations to forge bonds of solidarity across broader domains so that society can cohere as a whole. To empathize is to civilize.

Empathy has evolved over history. In forager-hunter societies, empathy rarely went beyond tribal blood ties. In the great agricultural age, empathy extended past blood ties to associational ties based on religious identification. Jews began to empathize with fellow Jews as if in an extended family, Christians began empathizing with fellow Christian, Muslims with Muslims, and so on. In the Industrial Age, with the emergence of the modern nation-state, empathy extended once again, this time to people of like-minded national identities. Americans began to empathize with Americans, Germans with Germans, Japanese with Japanese. Today empathy is beginning to stretch beyond national boundaries to biosphere boundaries. We are coming to see the biosphere as our indivisible community, and our fellow creatures as our extended evolutionary family.

The realization that we are an empathic species, that empathy has evolved over history, and that we are as interconnected in the biosphere as we are in the blogosphere, has profound implications for rethinking the mission of education. New teaching models designed to transform education from a competitive contest to a collaborative and empathic learning experience are emerging as

schools and colleges try to reach a generation that has grown up on the Internet and is used to interacting in open social networks where information is shared rather than hoarded. The traditional assumption that "knowledge is power," and is used for personal gain, is being subsumed by the notion that knowledge is an expression of the shared responsibilities for the collective well-being of humanity and the planet as a whole.

Classrooms could become laboratories for preparing young people for biosphere consciousness. Students are already becoming aware that the way they live leaves an ecological footprint, affecting the lives of every other human being, our fellow creatures, and the earth we inhabit together. They learn, for example, that the wasteful use of energy in the family automobile or home results in an increase of carbon-dioxide emissions into the atmosphere. The rise in the earth's temperature that follows can lead to less rainfall and more droughts in other parts of the world, adversely affecting food production and putting more of the world's poor at risk of malnutrition and even starvation.

The new sense of biosphere interconnectivity and responsibility goes hand-in-hand with empathy workshops and courses that help students draw global emotional connections in the same way that environmental curricula help them draw global ecological connections. Empathy curricula now exist in 18 states. In many schools, empathy curricula start as early as first grade.

One interesting example is the Roots of Empathy project, begun by a Canadian educator, Mary Gordon, which has been introduced into first through eighth grades across Canada. A mother and her baby visit the classroom once a month for a school year. Students are asked to closely watch their interaction, especially how they communicate and respond to each other. Over the course of the year, the children experience the baby and her mother as unique people with needs and desires for affiliation and affection not unlike their own. They become attuned to reading the baby's feelings and develop an empathic relationship with the baby and the mother. Children come to learn about emotional literacy—which Gordon defines as "the ability to find our humanity in one another."

Putting students into direct emotional contact with the parent-child attachment process and empathic bond creates "citizens of the world—children who are developing empathic ethics and a sense of social responsibility that takes the position that we all share the same lifeboat," Gordon argues. "These are the children who will build a more caring, peaceful and civil society, child by child."

The newly emerging awareness of global ecological and emotional interconnectivity is accompanied by a revolution in the way students learn. The traditional top-down approach to teaching is giving way to a distributed and collaborative educational experience designed to instill a sense of the shared nature of knowledge. Intelligence, in the new way of thinking, is not something one inherits or a resource one accumulates, but, rather, an experience that is shared among people.

Such trends are taking education beyond the confines of the classroom to a global learning environment in cyberspace. The extension of the classroom's central nervous system to embrace the whole of civilization exposes students to their peers in widely different cultures, allowing empathic sensibility to expand and deepen. Education becomes a truly planetary experience.

The global extension of learning environments in cyberspace is being matched by the local extension of learning environments in school neighborhoods. The walls separating classrooms and communities are breaking down. In the past 20 years, American high schools and colleges have introduced service-learning programs into the curriculum—a deeply collaborative learning experience. The exposure to diverse people from various walks of life has spurred an empathic surge among the nation's young people. Studies indicate that many students experience a deep maturing of empathic sensibility by being thrust into unfamiliar environments where they are called upon to reach out and assist others. Such experiences are often life-changing, affecting students' sense of what gives their lives meaning.

Although not yet the norm, more classrooms at the college and secondary-school levels are also being transformed, at least for small periods of time, into distributed-learning environments. It's not uncommon for large class groups to be divided into work groups, which are then given collaborative work assignments. The students later reconvene in plenary sessions where they share their findings, generally in the form of group reports.

Distributed and collaborative education begins with the premise that the combined wisdom of the group, more often than not, is greater than the expertise of any given member, and that by learning together, the group advances its collective knowledge as well as that of each member. The value of distributed and collaborative education first came to light in the 1950s, in research conducted by M.L.J. Abercrombie at the University College London Hospitals. Dr. Abercrombie observed that when medical students

worked together in small groups to diagnose patients, they were able to more quickly and accurately assess a patient's medical condition than when they diagnosed alone. The collaborative context allowed students the opportunity to challenge one another's assumptions, build on one another's ideas and insights, and come to a negotiated consensus regarding the patient's situation.

In distributed and collaborative learning environments, the process becomes as important as the product. The old hierarchical model of learning is replaced by network ways of organizing knowledge. Learning becomes less about pounding facts into individual students' brains and more about how to think collaboratively and critically. To be effective, collaborative learning requires mutual respect among all the players involved, a willingness to listen to others' perspectives, being open to criticism and a desire to share knowledge, and being responsible for and accountable to the group as a whole.

Distributed and collaborative learning favors interdisciplinary teaching and multicultural studies. The traditional reductionist approach to the study of phenomena is beginning to give way to the pursuit of "big picture" questions about the nature of reality and the meaning of existence—which require a more interdisciplinary perspective. Cross-disciplinary academic associations, journals, and curricula have proliferated in recent years, reflecting the burgeoning interest in the interconnectedness of knowledge. A younger generation of scholars is crossing traditional academic boundaries to create more-integrated fields of research. Several hundred interdisciplinary fields, like behavioral economics, eco-psychology, social history, eco-philosophy, biomedical ethics, and social entrepreneurship, are shaking up the academy and portending a paradigm shift in the educational process.

Meanwhile, the globalization of education has brought together people from diverse cultures, each with an anthropological point of reference. The result is a plethora of fresh ways of studying phenomena, each conditioned by a different cultural history and narrative. By approaching a study area from the perspectives of a number of academic disciplines and cultural perspectives, students learn to become open-minded and able to view phenomenon from more than one view.

Distributed and collaborative learning, with its emphasis on mindfulness, attunement to others, nonjudgmental interactions, acknowledgment of each person's unique contributions, and recognition of the importance of deep participation, can't help but

foster critical thinking skills and greater empathic engagement. In that sense, collaborative learning transforms the classroom into a laboratory for empathic expression, which, in turn, enriches the educational process.

If our primary nature is *Homo empathicus*, and the biosphere is the larger indivisible community where we and our fellow creatures dwell, then the mission of education ought to be dedicated, at least in part, to the task of bringing out our core being, so that we can optimize our full potential not only as productive workers in the marketplace but, more important, as empathic human beings in the biosphere. Our nation and our schools and universities should invest in distributed and collaborative learning experiences—curricula emphasizing the interconnectedness of life and geochemical processes in the biosphere, empathy courses that promote social behavior, cyberspace classes connecting students around the globe, service-learning programs in communities, sharing knowledge in peer groups, and interdisciplinary and multicultural studies—with the objective of nurturing students' empathic nature. While no one would disparage President Obama's effort to prepare our young people for the challenges they face in a global economy, the bigger task is to prepare students to live on a peaceful sustainable planet.

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