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## Social Learning, Sustainability and the Importance of Social Networking

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***Abstract:** Ecological, social and economic crises attest to the failing of the modern social paradigm. Central to the failed modern paradigm is a core problem of social learning, evident in the failure of people to avoid making mistakes and their inability to learn from the mistakes they have made. Problems of social learning are evident in education and technocracy. Society seeks to maintain the old paradigm, not innovate toward a successor. As evidenced during episodes of environmental turbulence, such as the discovery ones family has been exposed to contaminants, people are capable of engaging in extensive learning beyond their training. They are further enabled when connected to social networks that help inform, support and empower. This civil society based movement toward sustainability is its major contemporary impetus. Aided by new social learning tools, such as the Web 2.0 tool Moodle, there is the potential for informing and empowering people toward a transformation to sustainability.*

The failures of the modern period are many and the causes complex. Just on an environmental front, ecological and biogeochemical systems are failing or changing in directions that make life less livable. Contaminants beyond the reach of assimilative systems are accumulating and bioaccumulating. The very cybernetic attributes of earth are being confounded by shifts from negative to positive feedback loops. Population continues to grow exponentially against a finite world whose capabilities have long since been breached. And the phantom reserves that we have relied upon to overcome shortfalls are themselves failing as key resources move past peak availability. The lands are emaciated with development, other forms of life driven toward extinction, the oceans are depleted of fish, the mountains of snow cap, the aquifers pumped dry and the soils dried by drought, eroded by winds and depleted by over use. These environmental problems are matched with social and economic problems that collectively signal not only a sustainability crisis, but a fundamental crisis of the modern paradigm.

Central to this failed paradigm is a core problem of social learning, evident in the failure of people to avoid making mistakes and their inability to learn from the mistakes they have made. Even corrective methods such as Environmental Impact Assessment are disabled so that they do not work. The press and other potential truth giving informative mechanisms are corrupted by vested interests, ideology, consumerism and other forces of distortion. Individuals and communities alike are not taught how to learn, how to think critically, and how to participate in corrective processes. But they are taught to have a disinterest and incompetence in these areas. Major areas of awareness related to ecological literacy are omitted from knowledge and understanding. These problems are so endemic that they affect democratic and authoritarian societies in similar ways.

These problems of social learning are societal constraints in numerous ways. They block a full realization that the old paradigm has failed, why it has failed and the

consequences of its failure. They minimize the ability of people to question, to understand answers and to act on what they learn. They limit the ability of people to observe problems on their own and the freedom of experts to fully investigate and openly share results. They dampen creativity and initiative unless it is rewarded directly. And rewards are most often given for work that maintains the status quo. And they limit the interest of people beyond themselves and their immediate family. Community, place and region are ignored.

The Club of Rome identified one take on this problem in the 1980s. They found that most learning is aimed at maintaining the society; little is directed to critical or independent issues or skills. In particular, there was a deficit in the kind of innovative learning required if people are to adapt to changing conditions. Innovative learning would be anticipatory, in that the consequences of actions would be explored up front in a manner we now identify with the precautionary principle. Moreover, innovative learning is participatory, in the sense that it empowers all to be agents.

The Club of Rome critique can be directly related to educational theory. Friere, for example, correctly adduced that the educational systems of the colonialists and neocolonialists were designed to tighten control over client societies. Rather than educating people for free thought, instead educators acted like bankers depositing facts into young minds. What could be better than training a class of technocrats to help with the exploitation of natural resources or the diversion of agriculture to exports.

In education proper, such direct education has come to be associated with modes of pedagogy that are top down and controlling, subject to testing and evaluation and that confuse the reality that facts and values are closely connected. The directed approach lends itself to the technocratic model of the educator or expert who knows the truth and will impart it to the ignorant who must wait passively for the moment of enlightenment.

The same modes of imposing knowledge also characterize other expert based systems: doctors in health care, engineers in infrastructure issues, architects for buildings, psychologists regarding mental health, and so forth.

Assisting these systems is the allocation of knowledge into disciplines that are based on depth knowledge. Ignored, in contrast, are interdisciplinary, integrative and generalist forms of knowledge more associated with wisdom than expertise. The result is global generations of expert thinkers with incredible vision able to magnify the smallest part placed before them but lacking peripheral vision and thus functionally blind in the real world.

The problem with the directed model is that it does not fit with the reality of how organisms learn. Here, in what is termed the constructivist perspective, we see that learning is active, it builds on experience directly and knowledge is constructed best by the learner, not by the expert or teacher. Constructivists came to favor experiential education and learning modes that empower the learner to be exploratory, critical and integrative.

When it comes to social education, the same outcomes apply. Learners, if motivated, are capable of assessing topics of learning that they are not technically prepared to understand. Their learning is rarely as good as the experts, but good enough to engage the issues. However, these naive learners have a much better understanding of the broader dimensions of the problem than do experts, for whom such concerns may be extraneous. They are capable of addressing broader questions, such as ethics or the basic question of whether something that can be done should be done.

In my own work on people who live in contaminated environments, I have seen time and again experts who do not understand the circumstances into which toxic victims are plunged. Their life in turbulence, these victims are disabled by their dependence on such experts. Many are subsequently enabled when they begin to gain expertise themselves, a process I refer to as defacto environmental education.

It is frequently said that the naive learners are subject to errors of the type referred to as heuristic errors. Evidence shows, that this is true. However, the same errors also plague experts.

When toxic victims network with others suffering similar problems, collectively they gain information, support and power. Many become enabled as activists who learn to transform the situation. This same process of social networking occurs for sustainability issues broadly and results in a basic fact of our world today. While leaders stall, citizens all over the map advance innovative and effective solutions for problems and new approaches, all guided by the idea of sustainability.

While these points of activism underscore the power of social learning when activated, the more nagging question rests not with those who realize that fundamental change is necessary. Instead, the big question is how people's lives are caught up in a collectively constructed normal world that coexists with and is a prime cause of an unsustainable earth. We are capable of living on a daily basis with no thought to these problems, and when pressed to address them, we reveal little understanding and less will. We allow leaders to lie to us, industrialists to poison us and our very ways of living make us complicit in the problem. Rather than being preoccupied with fear, guilt or anxiety, we instead spend our time intoxicated, apathetic or misinformed. We think small and act small, but our cumulative impact is huge.

It is in this context that correctives to social learning are demanded. These involve both process and content changes. One cannot allow the basic structure of life to be captured by the modern paradigm and its failures. At the same time, one hopes to avoid environmental turbulence and its defacto environmental education. Learning may be spurred by finding oneself and ones' family immersed in a crisis, but this model is hardly what one would wish on the masses.

How then does one promote sustainability as an end in itself, persuading people to abandon the tried and supposedly true modern lifestyle for points less known?

Both content and process approaches come to mind. Ecological literacy is an approach aimed at familiarizing people with the core physical and ecological rules of our world. It turns out that there is widespread ignorance of these rules. The result is not just an absence of rules that would help guide a sustainable life but the imposition in our beliefs of contrary rules that defy nature and set up the sustainability crisis.

For example, the western notion that indefinite growth can define the economy or be sustained in population defies the notion of a finite earth. It ignores the fact that the earth is basically a closed system for matter. It ignores limits to growth that are known to exist even if their exact demarcation point is obscure. And it ignores the dangers of overshoot.

The results of these notions are that the world's population effectively demands the resources of more than one earth, even if we only have one. Temporarily, we have gotten away with this disparity using tricks. We have used up the earth stores of fossil fuels and developed energy-dependent technologies that have allowed us to make due

with one earth. But we have not curtailed population growth nor have we curtailed the spiraling demands the rich make on the earth at the expense of nature and the poor. Effectively, we have borrowed from the past and future as well. And, most of us give hardly a thought to the fact that at some point not too far off, major adjustments will be demanded.

At the same time that we ignore that the earth is a closed system for matter, we also ignore that it is an open system for energy. Instead of relying on the sun in its various forms to renewably power society, we instead rely on finite fossil fuels.

The list of social stupidities goes on and on. The point is that people, having learned core rules, may have a better chance of using them than they now do, surrounded as they are by disinformation and in a state of basic ignorance.

At the same time, sustainable processes are also needed. The aforementioned Environmental Impact Statement, although almost universally required, is rarely done as a serious effort to anticipate future conditions and seriously guide the decisions about whether or not to implement some change. In my own work, I have linked impact assessment to sustainability planning with the goal that one would only approve projects where the impacts contributed to sustainable outcomes.

Social networking, already mentioned, has emerged as a primary way to advance sustainability. The internet now contains easy access to primary information. One can network with like minded individuals and find groups that advocate for a sustainable direction. Rather than acting in isolation, it is now remarkably easy to foment revolution.

Web 2.0 tools such as Moodle likewise have amazing potential for fostering collaborative planning and decision making. Access to largely hidden documents can be made easy. People can participate virtually in proceedings of interest. Publics can thus be corralled for issues that might otherwise be ignored. Open inquiries and fact finding is possible. And free social networking can gather those sharing interests around strategies for action.

The transformation to a sustainable society will require just these steps. People need to be equipped with basic concepts. They need to be exposed to information on what actually is occurring in their world. And they need to have access to networks that can be used to disseminate information and accumulate the power of action.

The sustainable revolution demands not just the deconstruction of the old paradigm, but the construction of the new as well. Social learning, collaborative decision making and social networking are key tools for making this revolution a reality.

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## Curriculum



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An Environmental Psychologist, Michael R. Edelstein, Ph.D. (Social Psychology, SUNY Buffalo, 1975) is a sustainability theorist and practitioner. He heads the Environmental Studies program and the Institute for Environmental Studies at Ramapo College of New Jersey, where he has taught for 36 years. He regularly teaches courses on Sustainable Communities, Environmental Assessment, Environmental Psychology and World Sustainability. In the 1990s, he directed Ramapo's 5 year-long pioneer effort to infuse sustainability into the college curriculum and started the New Jersey Higher Education Partnership for Sustainability. His experience with local sustainability issues derives largely from his 27-year presidency of Orange Environment, Inc. a non-profit environmental organization based in Orange County, New York. He has traveled extensively to study sustainability issues, particularly in the FSU. His research since the late 1970s has focused on the social and psychological impacts of environmental contamination and has resulted in a number of books, including *Contaminated Communities: Coping with Residential Toxic Exposure* (Westview 2004), considered a classic in the field, and the co-edited *Cultures of Contamination: Legacies of Pollution in Russia and the United States* (Elsevier 2007). Dr. Edelstein has frequently been called upon to give his expert opinion.