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Education for Development: Willing to walk the talk?

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Abstract

This paper presents a status report of the work in progress of an ongoing inquiry into new educational models that better respond to the human, social, and sustainability challenges of development. Although the authors have been working primarily in the area of formal graduate education, this paper explores implications for education in general and presents a reconceptualization and expansion of education itself in order to foster the emergence of a sustainable learning society.

Keywords: education, development, evolutionary learning community.

Introduction

In discussions about development challenges and social problems, education is often seen as a consensual response, if not a panacea. And for good reason. There are clear correlations between the prosperity of societies and the educational level of their citizens. However, considering education as a leverage point for enabling innovation and development requires a more critical consideration of what one means to indicate by the term *education.*

In the last few decades, many scientists, futurists, philosophers, and practitioners have explored visions of ethical futures and the means by which to create them (e.g., Banathy, 2000; Chaisson, 1987; Eisler, 1987; Elgin, 1993; Goerner, 1994; Harman, 1988; Jantsch, 1975; A. Laszlo, 2002; E. Laszlo, 2002; Leonard, 1968; Macy, 1991; Milbrath, 1989; Montuori, 1989; Nattrass & Altomare, 1999; Theobald, 1997). However, the globality of current entropic realities – from human conflicts to social malaise to environmental degradation – places these challenges far from the reach of development initiatives that seek to redress them given the disjuncture between

current levels of technological advance and the socio-ethical sophistication needed to handle them. The gap between the accumulated knowledge that could serve to improve drastically the well-being and sustainability of societies around the world and the current state of world affairs indicates the absence of appropriate and effective channels through which to assess, communicate, and operationalize this growing body of knowledge. This gap calls for the development of processes and environments where people can learn, understand, and create meaning that will empower them to live in ways that foster lifelong learning, community, and sustainability. With a focus on such empowerment concerns, the objective becomes that of cultivating future makers; tending the conditions that provide individuals and groups with the wherewithal for self-directed sustainable development, just as a gardener tends a garden for healthy and robust development as a fertile environment for the full expression of the potential of that type of ecosystem. It is not a question of engineering development, but of cultivating the conditions that favor its organic emergence and creative sustainability.

Expanding education

The idea that education is a central aspect of a robust national development strategy seems non-controversial. However, education is in crisis. The current dominant educational system was created two centuries ago "to meet the needs of a society long gone" (Reigeluth, 1994, p. v). For example, the emphasis on competition and individual performance sustains a global market economy that is jeopardizing the natural environment. Contemporary society is changing rapidly and global challenges demand a different set of competencies. The decades-long effort to reform education has failed "because it has not let go of an educational vision that is neither workable nor appropriate to today's needs" (Wilson & Bennett, 1994). A host of initiatives on the "improvement," "reform," or "restructuring" of education still focus on making partial adjustments to the existing system rather than on thinking afresh and designing whole new systems for lifelong learning (Banathy, 1991) and the development of human, social, and environmental capital. In other words, radical transformation in education needs to take place in order to reach the totality of the population and to respond not only to the deficiencies within educational systems but also to the larger contemporary socio-ecological challenges.

When a person becomes part of a social system, much of the knowledge required to carry out his/her functions has to be picked up and learned progressively in day-to-day interactions, as well through educational processes devised to transmit cultural values and practices. However, history shows that there is neither sufficient learning from past experiences, nor efficient preservation of vital knowledge from the present, for societies to evolve purposefully.

The educational crisis is not a problem that can be solved with new techniques or with reforms that try to fix the parts of the system. It is rather a manifestation of outdated and inadequate values and perspectives rooted in a reductionistic and mechanistic view of the world. As a result,

"the key to successfully transforming education lies in transforming ourselves" (Caine & Caine, 1997, p. 11). Jonas Salk (1973), after admiring the human capacities to create, to destroy, to move in space and all over the surface of the earth, wondered: "To what extent [do we] have the ability to invent new ways to act wisely as a species…?" (p. 123).

This implies new challenges for both formal education and societal learning. Learning, inquiry, and dialogue are processes necessary for meaning creation. The need to focus on learning, rather than on teaching, is becoming more and more evident. There is an emergent consensus on the importance and relevance of self-directed and collaborative learning. But learning *what?*

Although necessary, it is not sufficient to learn exclusively from the past. This is what Banathy (1996) calls maintenance learning (p. 318-319) which is adaptive and involves the acquisition of fixed viewpoints, methods, and rules of dealing with known and recurring events. Maintenance learning is related to the mastery of accepted perspectives, knowledge and methods that have been validated and affirmed over time. It is a type of learning that maintains the status quo and preserves a culture. Maintenance learning is appropriate during periods of socio-cultural stability. In contrast, evolutionary learning is innovation-driven learning that enables the learner to cope with uncertainty and change, to transcend old perspectives and to design evolutionary strategies for socio-ecological success. Evolutionary learning is future-oriented and represents a more appropriate learning strategy during periods of socio-cultural instability or macroshifts when there are no clear guides to a viable tomorrow.

Formal educational systems have been focused primarily on maintenance learning and the creation of knowers who know a lot about existing knowledge and approaches in their area of disciplinary studies. But contemporary global challenges and call for evolutionary learning and the empowerment of lifelong learners capable of generating transdisciplinary knowledge and new processes that respond to their changing socio-cultural and bio-physical environments (Laszlo & Castro, 1995). Such learners act as multipliers of human, social, and ecosystemic capital and represent a key factor in evolutionary development.

Education, in its most popular conception, has been limited to schooled environments where individual learners are instructed. A recent and most welcomed addition to the educational repertoire has been the introduction of computers into the classrooms. However, education could be much more than this. Figure 1 shows a map of possibilities that expand this initial conception. The map represents four interconnected continua as examples of dimensions that should be taken into account when designing educational systems. While traditionally, education is considered as formal, instructional, with a recent support of educational technologies and much emphasis on

individual learning, there are other possibilities that could expand the boundaries of education. These four continua are:

E. Formal schooling – lifelong learning:
   Age, class, and culture are just a few examples of variables that call for a different type of education than that developed for formal standardized schooling environments. For instance, children from indigenous communities or children from the streets may benefit more from apprenticeship opportunities that help them to become healthy members of society than from an academic program that will teach them general (maintenance) knowledge.
F. Individual learning – collaborative learning:
   Individual performance is over emphasized in formal schooling mainly through the evaluation and grading system. More recently, there has been a growing interest in collaborative learning and teamwork (e.g., Miller, 2000). The ability to work and learn together, to create common ground and shared goals, to experience synergy and resolve conflicts… these are competencies for citizenship that currently are not well provided for through individual oriented learning programs.
G. Hard technologies – soft technologies:
   The introduction of information processing and communication technologies (as examples of hard technologies used in educational processes) has been instrumental for improving education. For example, distance education makes it possible to reach communities deprived of human resources necessary to the effective delivery of education. However, even within formal school environments, there is an opportunity to introduce new technologies of human interaction, such a group dynamics and participatory decision-making processes, that enhance the active learning experience of the learners and empowers them to continue learning beyond guided educational experiences.
H. Guided instruction – self-directed learning:
   Education naturally brings to mind the image of the educator: the learned individual willing to impart his or her knowledge to others willing to receive it. Instructional design technologies are all about the role of the educator – the instructor. However, learning is not dependent on instruction, although it can clearly benefit from it. The other extreme of guided instruction is self-directed learning. That is, what a small child does while playing in a garden, and with a similar drive, what adults do when they find an interesting topic and keep learning about it on their own.

In short, to complement formal schooling, education should also care about lifelong learning situations that occur in the community, in the family, in the organization, in society. To complement guided instruction, education must also be about self-directed learning experiences. To complement individual learning, education needs to promote collaborative activities that support the collective generation of knowledge and meaning. Finally, to complement the power of information processing and communications technologies, education should also incorporate soft technologies – technologies of human interaction – to enhance participation, decision making, and creativity. This map is not exhaustive, but rather suggestive of possible directions for educational innovation.

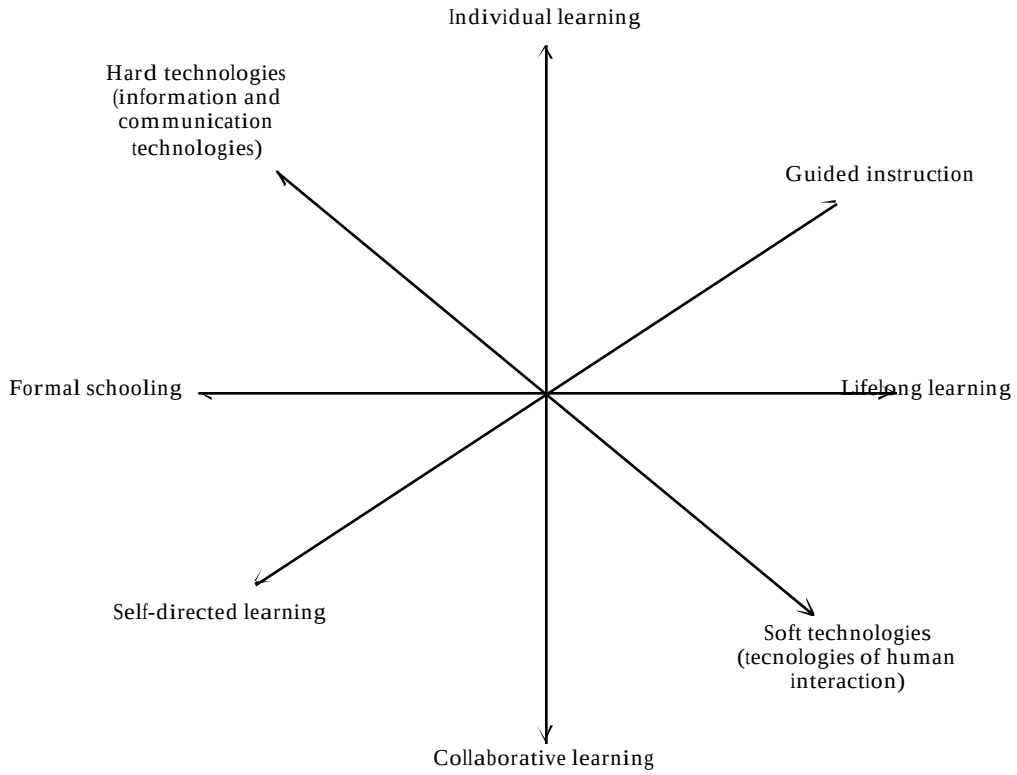

Figure 1. Mapping educational possibilities

An attractor for evolving education for development

In chaos and complexity theory, the notion of an attractor has been defined as "a pattern of behavior that a system moves toward over time... [whose] output never repeats but no point falls outside a limiting shape. ... Strange attractors show how a complex system may have endlessly unique behavior that is nevertheless clearly ordered. The long-term behavior of the system is non-repeating yet attracted to a clear form" (Goerner, 1994, p. 212). We borrow the notion of the attractor to argue that in human science we can identify, study, and seed the appropriate attractors with their own set of "simple rules" to generate self-organizing and unique dynamics within certain desirable parameters. Applied to the design of social systems in general, and educational systems in particular, the simple rules for self-organization can take the form of *fuzzy guiding principles* that facilitate, but do not control, the emergence of desirable but unpredictable outcomes. The guiding principles can be expressed in terms of value statements, descriptions of ideal states, markers of performance, or questions to consider, just to mention some examples. Such guiding principles should be systemic, that is, triggering thought and action in terms of a variety of dimensions that take into account all the key aspects for the well-being and sustainability of the system in interaction with its broader environment.

In addition to our interest on expanding education, as discussed above in terms of additional dimensions for learning experiences, we are exploring a system of fuzzy guiding principles, or a

behavioral attractor, in terms of content and process development for specific educational endeavors. The application of this system takes different shapes depending on the topic or context of the educational experience in question. The constant in terms of process has been the creation of learning communities through which participants engage in collaborative and self-directed learning. The constant in terms of content has been the exploration of the ethical implications of the knowledge and skills learned in terms of their likely impact on society and future generations. As a result, this attractor for new forms of educational systems emerges as a form of community, one that we call Evolutionary Learning Community, or ELC (Laszlo, 2001; Laszlo & Laszlo, 2000).

ELC is a pattern more than a thing. It is a general description of a learning community dedicated to self-directed evolutionary learning and action for the creation of sustainable and evolutionary futures – a system designed by and for learners to serve their own interests, passions, and commitments to the creation of a better world. ELC is not a prescriptive model with pre-established contents and processes, but rather a flexible and evolving guiding image that serves to catalyze the design of ultimately unique and interconnected self-organizing and evolving learning systems.

Elsewhere (Laszlo & Laszlo, 2003), we argue the case for a link between education and the creation of human and social capital. Human capital refers to the well-being of the individuals and their capacities to become productive and responsible members of society. Social capital refers to the networks and relationships of trust and reciprocity that allow the favorable exchange of ideas and goods. Beyond these two forms of meta-individual capital, contexts of an inquiry whose overall purpose is to make a contribution to evolutionary development (Laszlo & Laszlo, 2002; Laszlo, et. al., 2002) also require the consideration of ecosystemic capital. Ecosystemic capital refers to the robustness and sustainability of the natural resources and ecosystems in which human and social capital is developed and employed.

Most well intentioned development efforts that account for much of the “progress” achieved in the past, both in developed and developing countries, are responsible for major environmental damage and the widening of the gap between rich and poor on a global scale. To look at development from a systemic and evolutionary perspective involves making explicit, and embracing, the values, perspectives, assumptions, and knowledge required to move human societal systems to an ethical social-innovation phase. How can we make development locally relevant and globally attuned? How can development promote higher quality of life? How can humankind learn to live simply, meaningfully, and yet productively? These are the true, as yet unaddressed, challenges of development. And that is the focus of inquiry on education for evolutionary development.

The design of educational systems and educational processes needs to take into account these basic questions. What would happen if, in designing a specific learning experience (for instance, a geography class at elementary school, a strategic management course at a graduate business school, or a neighborhood association gathering to plan a community development project), the actors were to consider evolutionary development issues related to the criteria of human, social, and ecosystemic capital? And what would happen if we were to use evolutionary development issues (such as quality of life, social responsibility, and environmental sustainability) as criteria

by which to evaluate the relevance and effectiveness of educational programs? This is what the authors have sought to do in one of their concrete ground-level action domains: their classroom.

A case

Both authors currently serve as faculty at the Graduate School of Business Administration and Leadership (EGADE) of the Technológico de Monterrey (ITESM) on the Monterrey Campus in Mexico. Our research is focused on both evolutionary development and educational innovation. We seek to integrate core aspects of our findings in our team-teaching interventions.

One course that we have taught over the last three years is the core MBA course on "Strategy, Structure, and Processes of Organization." EGADE is accredited by AACSB, EQUIS, and SACS, and its MBA program has international stature. The ongoing professional challenge for the us is to integrate into the core curriculum some ideas related to evolutionary development, more specifically, issues of corporate citizenship and the triple bottom line (financial, social, and environmental profits).

Our role has been that of researchers of our own educational practice. The first stage focused on course redesign. This involved a modification of both learning content and educational process. In terms of content, we infused each topic of the course with materials related to social and environmental responsibility in the business sector, as well as with issues of quality of work life and of organizational transformation processes. In terms of process, the course was organized to enable our students to form a learning community and to make decisions about their own learning.

The second stage involved implementation of the educational design and adjustment of the course based on feedback gathered from the students. To gather comments and feedback we designed a qualitative questionnaire that we applied during the first three consecutive terms (starting in September 2000) while in the following terms we hosted a session at the end of the course with our students in which they were able to share their views about their experience throughout the course (with the last session in ending in March 2003).

Our qualitative questionnaire focused primarily on the self-directed learning process generated by the learning community model. We were looking to receive expressions and interpretations of student experience. The questionnaire had three sections: The first section sought to capture the construction of meaning derived from the collaborative learning of the students as members of the learning community. The second section quantified subjective aspects of their experience on a scale of 1 to 5. The third section was geared to obtaining concrete suggestions and feedback for the improvement of the course. Of all the students enrolled in our course during those 3 academic terms, 70% completed our questionnaire.

The qualitative information provided by our students was analyzed using the grounded theory method (Denzin & Lincoln, 1994), which consists of identifying the variables or categories that emerge from the answers expressed in singular ways by the participants. For the quantitative

questions (in the second section of the questionnaire), we employed a response frequency analysis.

The students who experienced the sense of having participated in a learning community in action described collaborative learning as involving sharing and mutual support, thinking "out of the box," projects and team activities, and ongoing self-directed learning. They saw collaborative learning as a way of enriching the learning process through the incorporation of diverse perspectives and attitudes of openness to new ideas. The sense of belonging to a learning community created strong ties between the students. They got to know each other more deeply, they learned to listed to each other, to respect the opinions of others, to create trust, and to remain open. They also learned to value cooperation and experienced a sense of community both with their peers and with their professors due to the way in which power/distance relationships were stifled. In general, students felt that their learning was enhanced by the learning community model since they not only learned from what the professors had to offer, but also from the examples and multicultural experiences of all the participants in the class. They also noted that it was more fun and challenging than other educational experiences they had had in the course of the graduate studies.

The students saw a clear advantage to this type of learning in relation to their future learning needs in organizations. They had the (unfortunately rare) opportunity of experiencing organizational learning and knowledge management processes in a formal academic setting.

To be sure, there were certain disadvantages perceived by the participants in our learning communities. Students come with clear expectations of the process they assume they will experience in a classroom. Since the learning community format gave them degrees of freedom to self-organize and to learn through dialogue, they experienced a certain lack of structure with which they were unfamiliar. Learning through dialogue and by collaborating in cases or projects is also more time consuming than just listening to the lessons imparted by a professor. And the quality of the learning varies according to the composition of the group. Because the learning community was created in a formal graduate course, some individuals got the impression that there was a certain degree of inauthentic participation on behalf of some students who were motivated, they thought, by a conditioned behavior for a more favorable evaluation from the professors. During dialogue sessions, especially at the beginning of the course, some students preferred not to participate for fear of saying something wrong or embarrassing. This feeling was overcome toward the end of the course since the professors continuously emphasized that there were no right or wrong answers, only more or less useful ones.

From a total pool of thirty-six students who answered the questionnaire:

1) 86% thought that this MBA course was very different from other courses they took before
2) 83% thought that the course was oriented primarily towards learning rather than teaching
3) 86% considered this course to be more challenging than other MBA courses they took
4) 89% considered this educational experience to be highly relevant to their personal and professional life

From this experience, we observed that the creation of learning communities is a first step toward evolving education for development. However, learning communities, as such, are neutral in terms of learning content. That is, unless they are *evolutionary* learning communities (ELCs). In the case of ELCs, the general purpose of the learning community is to develop the competencies for enabling self-directed evolutionary development.

In our educational practice at the business school, our learning communities also focus on important evolutionary dimensions that relate to the improvement of quality of life and to the creation of more just and sustainable economies. Through readings, videos, case studies, group dynamics, and team projects, students have the opportunity to learn about systems thinking, managing complexity, organizational transformation, and sustainability in business. At the end of the course each term we have a feedback and reflection session. We include here four testimonials from one of these sessions from students who took our class in the Winter of 2003:

> "I feel that I know nothing about nothing. I feel I have to keep researching about business models. I like to hear that people are thinking business is not only about money…. At this point I feel good because I know that there are other people concerned about society and the environment."
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> "The content of the course was quite unexpected to me. When I enrolled in a course about strategy, I expected anything except these new trends about the evolution of strategy in organizations. To be honest, I had anticipated that the course would deal with strategy, but on a more military approach. The conceptual tools that I have just picked up were not only very interesting, but will be very useful in my professional life…. Nonetheless, I think that the most important thing that I learned in this course on strategy was that nowadays, organizations, in order to be economically sustainable, have to be socially and environmentally sustainable as well. Mankind has wasted and spent the planet to such extent that there is no other possible way to think about sustainability. Organizations have to forget about the self-centered approach and think that in order to sustain themselves economically, they must care for social and environmental aspects, too. And there are plenty of examples to prove that it is possible to be economically sustainable without overlooking the social and environmental aspects. Taking this course was a whole new experience for me."
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> "I think that the actual structure of the whole class invited the interactive participation of all members in class, creating a learning community that enabled all members to share opinions, documents, articles, bibliographies, etc. relating to our class and the business environment. What I learn during the course was that organizations cannot be concentrated only in profitability.
> Our professors emphasized that in order to assure competitiveness in today's business environment, we have to develop a "sustainable" strategy, and this refers to thinking about the possible impact of our actions not only in terms of the economic bottom line (profit), but also in terms the environmental and social impacts of companies. This concept could be defined as the triple bottom line (economic-social-environmental development), and before the class, I didn't have

a clue that this concept existed, but now I am convinced that companies have to focus on creating a balance between these three concepts in order to assure sustainability…. I was impressed not only with the knowledge shared by [the professors] in class but also with the relentless effort to create social awareness among all the students. By promoting social and environmental responsibility, I think that our professors are doing an outstanding job by helping us to become not only common leaders, but committed leaders who will generate value for our society.."

"Thanks to this class I have learned to see business from a broader perspective. Our planet is too fragile, therefore we must be more conscious about how we treat it in our business world. One thing is certain: all damage done will come back to us at a very high price. I also learned that the environment is not the only other responsibility that companies and organizations must have. They should also consider how they contribute to society. If a company is willing to place their profit objectives over the welfare of their own workers, or are willing to play with the health of their stakeholders in order to earn more profits, then they are not socially conscious. It is sad to see that companies are willing to do that and more in order to maximize their profits. That is why I believe it is so important that these issues continue to be taught in the classroom so that future generations can change such abuses. We are still in time to make a change in the fate of our society and our planet."

Final reflections

Essentially, education for development is about the democratization of knowledge, about citizen involvement and the expansion of the boundaries of what traditionally has been considered education, in order to give rise to an authentic learning society at both regional and global levels. It is not so much about the accumulation and application of knowledge through know-how anymore, but more about the creation of shared meaning through approaches that emphasize know-why and care-why. It is based on a new way of thinking, informed by a planetary ethic and a different way of living from that which is currently favored by mass media commercialization. In the final analysis, education has both the potential and the responsibility to contribute to the emergence of a sustainable global civilization.

The development of human, social, and ecosystemic capital in service of the emergence of a sustainable learning society represents an enormous challenge for educators and researchers. The first and foremost step is the application of the Evolutionary Learning Community attractor in various contexts with the purpose of documenting and learning from those experiences. In other words, we suggest that that the attractor of Evolutionary Learning Community be purposefully applied in diverse contexts, such as schools and universities, corporations and organizations, communities and associations. The outcomes of these varied experiences would contribute in different and complementary ways to the emergence of a sustainable learning society.

The action-research entailed by this line of inquiry involves:

- expanding the boundaries of education in order to facilitate the emergence of a sustainable learning society;
- designing development solutions that address cultural differences and contextual limitations;
- implementing a ground-up, self-organizing, and emergent development strategies (viz., evolutionary development) that engage diverse stakeholders in actions and decisions affecting their present and the future of subsequent generations.

The implications of this research for educational institutions are evolutionary and, we dare say, even revolutionary. If education is really in the business of promoting development, the question is … are we willing to walk the talk?

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