

Fostering a Sustainable Learning Society through Knowledge Based Development

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Abstract

According to convention, there appear to be two main purposes of knowledge based development: economic prosperity and human development. This paper emphasizes the importance of the balance between these two purposes and suggests that they need to be complemented with an axiological framework grounded in a systemic and evolutionary perspective. Such a contextualization of development brings sustainability into focus and gives direction and meaning to related knowledge strategies. The notion of the knowledge economy has long been embraced as an attractive next stage of post-industrial society. However, it remains grounded in an economic model that treats society and the biosphere as externalities. As a result, the knowledge economy appears as an improved but essentially unchanged paradigm of value exchange that continues to increase the gap between rich and poor, ignores the intrinsic value of living and life-supporting systems, and undermines the viability of the biosphere – as if human systems could live without it. A new framework for understanding development in a systemic and interconnected way – evolutionary development – is presented as the larger container within which knowledge strategies could make a significant difference in terms of the creation of value – not only financial, but also human, social, and ecosystemic. The case of Monterrey, Mexico, as the host of the Universal Forum of Cultures in 2007 and as a place with the intention of becoming a knowledge city, is used to highlight the concrete opportunities to link the economic and human dimensions of knowledge based development for the creation of a sustainable learning society.

Keywords: evolutionary development; evolutionary learning community; learning society; evolutionary systems design; knowledge management; sustainability

Beyond the Knowledge Economy

The first delineation of the Knowledge Economy was introduced by the OECD in their 1996 report *The Knowledge-Based Economy*. According to this report, a Knowledge Economy creates, distributes, and uses knowledge to generate value and gives rise to "a network society, where the opportunity and capability to access and join knowledge and learning intensive relations determines the socio-economic position of individuals and firms" (OECD in Clarke, 2001, p. 189). Advances in information and communication technologies during the 1990s established the infrastructure that enable the knowledge economy to scale up. The main novelty of the knowledge economy consisted of the need to manage an intangible asset that, in contrast to material resources, does not depreciate through use but rather becomes more valuable the more it is used. With this novel need the field of knowledge management (KM) was born.

The initial and obvious implication of knowledge management was that it was a source for competitive advantage of firms: "Knowledge management provides the means to generate, distribute, and use knowledge in ways that add value to business activity and provide new opportunities for enterprise" (Clarke, 2001, p. 192). In other words, KM became yet another management approach by which to continue to pursue the unquestioned "business as usual" motive: profits and growth. Both the industrial revolution – triggered by the extension of physical powers—and the post-industrial revolution – triggered by the extension of cognitive powers – made of the 20th century one of growth, unrestricted exploitation of natural resources, and further marginalization of already marginalized peoples. Although the knowledge economy has the power of transforming society, instead of giving us a butterfly so far it has merely contributed to making a bigger and faster caterpillar

Knowledge based development (KBD) is an expansion of the KM agenda. As Carrillo (2002) expressed it: "As KM comes of age, it is evolving into a strategic management approach, applicable to purposeful human organizations in general" (p. 379). The application of KM to development issues makes sense. For instance, education and training – two processes concerned with knowledge transition and application – have long been considered core elements of development strategies. The application of more sophisticated knowledge strategies to cities, regions, countries and other social systems is a natural expansion of the applicability of the KM movement. However, there are some questions that have not been explicitly asked or brought to the foreground of this expansion, such as: What is the vision to which KM wants to contribute? What are the values behind KM and KBD? Will KM become yet another approach to help organizations do things right, or will it be a vehicle for government, business and civil society to do the right things? What if KBD, as a field, were to stand only for strategies that support and enhance systemic well-being at the level of the whole rather than the individual supremacy of one person, organization, or country at the expense of the rest? Although these questions can be expressed in multiple ways, they fit the categories of "why," "what for," "so

what," and "what if" type questions that would help this thriving field to make not only an important contribution but a truly transcendent one.

Questions such as these have been already raised within the field of KM (e.g., Allee, 1999; Laszlo & Laszlo, 2002; Malone & Yohe, 2002; Carrillo, 2004) as well as from a business perspective (e.g., Hawken, Lovins, & Lovins, 1999; Nattrass & Altomare, 1999; Willard, 2002; C. Laszlo, 2003). "Knowledge managers must work closely with business leaders to question and rethink underlying business models in order to incorporate the new fundamentals for successfully leveraging knowledge to create value. As we reshape assumptions, beliefs and mental models of what constitutes success, we can begin to reconcile the split between the urge to include more holistic perspectives and higher values in the world of work with outdated business models that simply make that impossible" (Allee, 1999, p. 130).

The outdated business models come from a reductionistic world view and linear thinking that has become dominant in Western cultures and has been imposed throughout much of the world through political and commercial expansion. However, we are beginning to see some differentiation within Western cultures on this score.

There is no question of the economic and military power that the United States of America has over the world. However, "to be a great country it is necessary to be a good country" and the American way of life "no longer inspires; rather, it is now looked on as outmoded and, worse yet, as something to fear, or abhor" (Rifkin, 2004, p. 75). In recent years the opposing meanings that freedom and security have for Americans and Europeans have become more evident. Although they share a common history, Americans chose to see freedom as autonomy and self-reliance, and accumulation of wealth and exclusivity as that which provides security. For Europeans, freedom is vested in multiple communities which increase the options for living a full and meaningful life. For them, unlike for Americans, "it is inclusivity that brings security — belonging, not belongings" (p.77). "The American Dream emphasizes economic growth, personal wealth, and independence. The new European Dream focuses more on sustainable development, quality of life, and interdependence. The American Dream pays homage to the work ethic. The European Dream is more attuned to leisure and 'deep play'.... The American Dream is deeply personal and little concerned with the rest of humanity. The European Dream is more expansive and systemic, and therefore more bound to the welfare of the planet" (Rifkin, 2004, P. 77). Rifkin recognizes that Europe has not been able to live up to its dream yet, but neither has American to its dream! The point he makes is that Europe has articulated a new vision for the future that differs from the unquestioned values and aspirations of the American Dream as it has been exported globally.

This new European Dream is absent from "Americanized" analyses that report on how Europe is lagging behind the plan to become the strongest knowledge economy by the year 2010 (Collins, 2005). One possible reason for this is that a vision of sustainable global interdependence may be compelling if we allow ourselves to be fully human – rational and emotional beings. But Western capitalist culture, based on reductionistic thinking, has been successful at keeping reason and

emotion, money and values, present interests and long-term future compartmentalized and separate. Dave Foreman tells the story of how, as a lobbyist for The Wilderness Society in Washington, D.C., he was told by a senator to put his heart in a safe-deposit box, replace his brain with a pocket calculator, and quote only economists and engineers because if he were to be emotional, he would lose his credibility (in Jensen, 2002, p. 11).

In Europe, business funding for R&D (the kind of investment that can turn innovations into wealth) "grew less quickly than GDP in 2002, accounting for 55.6% of the total, compared with 63.1% in the US and 73.9% in Japan" (Collins, 2005, p. 22). So Europe's position in global research is declining partly due to weak economic growth compared with emerging economies (p. 23). However, regardless of "weak" (or maybe even moderate) economic growth, European countries have been able to provide a better quality of life for their citizens. There is sufficient evidence to show that economic systems have been measuring the wrong things, which has led to a situation in which we see the economy growing and social and environmental conditions declining at the same time. A purely growth oriented quantitative metric such as the Gross Domestic Product (GDP) "makes no distinctions between economic transactions that add to well-being and those that diminish it.... As a result, the GDP masks the breakdown of social structure and natural habitat; and worse, it portrays this breakdown as economic gain" (Cobb, Halstead and Rowe quoted in Abramovits, 1997, p. 42).

If Rifkin is correct in his analysis of the shift in European values and aspirations, Europe may be moving beyond the knowledge economy and positioning itself to be a key contributor in enabling a sustainable learning society.

The three purposes of Knowledge Based Development

There seem to be two recognized purposes for knowledge based development: On the one hand, it is clear from the literature that knowledge based development is a powerful strategy for economic growth and the post-industrial development of cities and nations to participate in the knowledge economy. For example, technical knowledge for the innovation of products and services, market knowledge for understanding changes in consumer choices and tastes, financial knowledge to measure the inputs and outputs of production processes, and more recently human knowledge in the form of skills and creativity, are all codified within an economic model that seeks financial returns (Lever, 2002, p. 861). On the other hand, there are approaches to knowledge based development that indicate the intention to increase the skills and knowledge of people as a means for individual and social development, eventually making prescribed formal education less needed (Gonzalez, et. al., 2005, p. 109-110).

These two main purposes of KBD are complementarity: an increase in intellectual and human capital will bring about more creativity, innovation and entrepreneurship that will positively

impact economic possibilities. And yet, these two purposes can very well continue to operate within a framework of "business as usual" that continues to pursue economic growth at both the micro and macro levels.

If we were to keep these two main purposes of KBD – economic prosperity and human development – exclusive of each other, we would soon realize that we are creating a paradox: an ever larger number of people would be ready to participate in a knowledge economy that, by its nature, would require an ever smaller workforce. In the US, "there will never be enough jobs in the knowledge sector to accommodate the millions of people let go in the traditional industrial blue- and white-collar manufacturing and service sectors" (Government Technology, quoted in Ahlawat & Ahlawat, 2006, p. 103). A single-minded emphasis on the financial bottom line and advances in technology have made it possible to drastically reduce the number of employees required to achieve increased productivity. For example, United States Steel currently has 20,000 workers who produce more steel than the 120,000 workers it used to have in 1980 (Ahlawat & Ahlawat, 2006, p. 103). If what we need is more jobs to keep the current economic machine working, then maybe the knowledge economy is not the right solution.

The economic and human development purposes of KBD need to be contextualized in a larger framework of the direction in which we want our global civilization to head. In the middle of last century, advances in science and technology offered the promise of a future with less work and more leisure. This is quite the opposite of how things actually are in the US today: According to the national Survey of the Changing Workforce, US employees in 1997 were working 3.5 hours more than they did 20 years earlier (Schor, 2001, p. 17). In Europe, as discussed above, there has been a more visible increase in quality of life indices although the pathological need to grow the global economy continues to place in question their democratic socialism and similar progressive systems that permit such "luxuries" as a four (and in some places, even a three) day work week.

Carrillo (quoted in Gonzalez, et. al., 2005) considers that the first success factor for KBD initiatives is "a leadership committed, above all, with the sustainable wellbeing of its community" [emphasis added] (p. 108). This is a profound statement of how the field of KBD is moving beyond the vision of a knowledge economy to embrace the possibility of a sustainable learning society. What is interesting in this statement is how the definition of the boundaries of "its community" is left to different interpretations. We would argue that given the dominant mindset of creating competitive advantage for survival in an aggressive global economy, the interpretation could be pretty local and circumscribed. However, given the relatively recent interconnectivity across (artificial) geo-political boundaries enabled by information processing and communication technologies, and the perennial interconnectivity derived from the fact that we are members of one planetary community, we believe that the commitment required for successful KBD initiatives is to the sustainable wellbeing of the planetary community.

As a result, a third purpose of KBD can provide it with both context and directionality: the purpose of contributing to a socially and environmentally sustainable society as the enabler of an

evolutionary future or futures (see figure 1). From an evolutionary perspective, human societies have progressed through various forms of social organization that depended on different kinds of technologies: survival technologies (i.e., tools for hunting/gathering), fabricating technologies (e.g., looms and plows in agricultural societies), manufacturing technologies (i.e., the machinery of the industrial age), and intellectual technologies (e.g., digital information and communication tools in post-industrial societies). And while it may be possible to describe the challenge facing technology in the twenty-first century (A. Laszlo, 2003a), it is not at all clear what comes next. KBD, as a meta-field that seeks to manage the best utilization of the diverse array of human knowledge (from all scientific disciplines and cultural traditions) for the stewarding of human activity systems, has a strong say in the kind of outcomes promoted by development initiatives. Whether or not it is listened to is another matter...

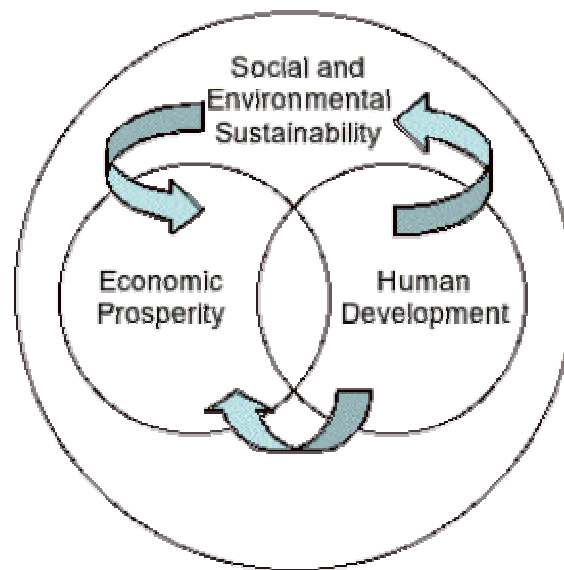


Figure 1. The three purposes of Knowledge Based Development

To include this third purpose, there is a need to recast those who live in a knowledge economy as more than knowledge workers (because actually only a sub segment of a city's population would be able to find jobs in knowledge industries) but rather to see them as knowledge citizens. Carrillo (2004) defines knowledge citizens as a better educated (formally or informally), critical and informed population that is ready to participate in civic life, is politically active, is interested in a better quality of life for itself and the next generation, including concern for healthy lifestyles and less dependent on consumption, is appreciative of artistic expression and cultural activities, and is more competent in human relations (p. 40). Knowledge citizens make possible a learning society (we prefer to call it a learning and not a knowledge society to put emphasis on the process of acquisition and creation of knowledge rather than on knowledge as the product or objective of such a process). The knowledge city may be thought of as the hardware; the infrastructure for learning and knowledge creation. The learning society is the

software; the culture of learning, creativity and innovation that distributes the benefits of access to knowledge across the society by offering a higher quality of life and greater opportunities for meaningful living. A knowledge city, without the inclusion of the learning society comprised of knowledge citizens, would create a polarization of those with access to the ivory towers of the complex and expensive info-tech industries, universities and research institutions and those who continue to live at the low-tech margins of society.

From the perspective of a sustainable learning society, the boundary of a knowledge city is an artificial one. The level of exchange and interconnections among the population in the main cities around the world is such that development strategies have impacts locally and globally. Sustainability requires collaboration among governments, businesses and civil society across regional and national boundaries for the joint creation of meaningful and sustainable futures.

From growth to development to evolutionary development

After billions of years of evolution on our planet, human life and consciousness emerged. But in the last few decades, the human species has placed at risk not only their own future but also the next stages of evolution on Earth (Laszlo, 1994, p.1). Our contemporary ways of living are not sustainable, our social systems are breaking down, our societies are not at peace. Can we learn to cope with uncertainty, to work with evolution? Can we become masters of our own destiny in ways that are informed by the dynamics of ever-unfolding nature? Such is not a quest of foolish arrogance but rather the survival imperative for sustainable co-existence of humankind with the life support systems of planet Earth.

Well intentioned development efforts around the world are responsible for major environmental damage and the widening of the gap between rich and poor on a global scale. In the political debate over globalization and sustainable development, two assumptions about the economics of these processes have been clearly stated: "that 'development' proceeds, solely and inevitably, through the industrialization and the proliferation of capital intensive high-technology towards the creation of service sector economies; and that globalization, based on a neo-liberal, capitalist, free market ideology, provides the only vehicle for such development" (Balakrishnan, et. al., 2003, p. 299-300). Is the field of KM in general, and KBD in particular, contributing to the reiteration of these assumptions? Or are we ready to evolve the assumptions and values that would inform and guide the creation of knowledge and knowledge based strategies for development?

At this point, it becomes important to distinguish between growth, development, and evolution. Evolution, as we have seen, is intended to specify a trend in the development of the universe that constitutes a cosmic process. It manifests through particular events and sequences of events that are not limited to the domain of biological phenomenon but extend to include all aspects of

change in complex dynamic systems with a throughput of information and energy. As such, it involves a process of directional (but non-directed) change that leads from states closer to thermodynamic and chemical equilibrium (the so called 'first state' of nonlinear thermodynamics) to those further removed from it (the 'third state'). More simply put, it is 'a general way of conceptualizing the self-organizing selection process of the universe displayed in É increasing complexity' (Reeves in Françoise, 1992, p. 1102). Development really relates more to the world of human affairs, and is part of our socially constructed reality in terms of what we consider to be 'desirable' objectives for us or others (and hence allows us to make very subjective and relativistic statements about what and who is developed verses those that are not). Growth is something that we can measure through definable units of size or scale, and relates to notions of physical size or numerical quantity. It provides a metric that can be applied to many processes of change, but not to those that are qualitative or conditional in nature.

Growth = an increase in size or quantity

Development = an amelioration of conditions or quality

Evolution = a tendency toward greater structural complexity and organizational simplicity, more efficient modes of operation, and greater dynamic harmony.

Evolutionary Development, therefore, seeks to promote future-oriented human activities with vistas beyond homocentric values and perspectives, taking evolution as the teacher of life-affirming and opportunity increasing processes and outcomes. Evolutionary Development involves designing new ways of learning, working, and living that embody social and environmental integrity. It is about creating a simpler and more meaningful way of producing what we need in order to reestablish the balance between our human systems, the biosphere, and the geosphere in which they rest.

Types of Capital for Evolutionary Development

The famous "triple bottom line" accounting of green business practices has evolved and in recent years has been augmented with a systems view that integrates the otherwise separate value base of each bottom line. Rather than consider financially responsible strategies, socially responsible strategies, and environmentally responsible strategies as separate though related areas of management, the trend is to think in terms of unified strategic orientations that draw on and further healthy evolutionary development. These orientations are known by some as "blended value" stewardship (Emerson, 1998) and by others as concern with the "integrated bottom line" (C. Laszlo, 2003). The common orientation is systemic; an integrated view of the triple bottom line rather than the traditionally linear and siloed approach that considers each dimension on a separate strategic track. It is with reference to this newly recast triple bottom line that a

framework for the development of nine interdependent dimensions of capital can be generated. In this framework, the nine dimensions of capital are:

1. Natural capital (the raw materials, natural resources and ecosystem services we use as input in our industrial processes and the affordances they provide)
2. Manufactured capital (the finished products to which we ascribe market value)
3. Technological capital (the implements and methods of doing or making that extend human capability)
4. Financial capital (the monetary representation of market value)
5. Intellectual capital (the knowledge and know-how that support human activity and innovation)
6. Human capital (the health and well-being of a productive population)
7. Social capital (the coherence and functionality of relationships in a community)
8. Ecosystemic capital (the biodiversity and ecosystemic robustness of a bioregion)
9. Evolutionary capital (the potential for a course of action to be opportunity increasing)

These nine types of capital are not mutually exclusive. In fact, they often overlap, such as when a patent for a manufacturing process is considered a form of intellectual capital, technological capital, and financial capital at one and the same time. Nevertheless, they provide distinct lenses through which to consider value exchange and value creation propositions depending on the specific context of the exchange. The scale moves up from more tangible and concrete forms of capital (as represented by the bounty of nature, for example) through increasingly abstract and intangible forms of capital that can only be represented by the identification of patterns of change that provide the conditions for ongoing systemic emergence. This means that it is easiest to point to physical examples of natural, manufactured, and even technological capital. Already with technological capital, though, certain aspects are difficult to point to directly. For example, the know-how involved in software design is an aspect of technological capital, but it is difficult to hold in your hand or point to if you want to show it to someone. The patterns of healthy, vibrant, and thriving being and becoming that can be identified as markers of high human capital tend to be similar, though more complex and less easily diagnosed, when considered in terms of social capital and even more so at the level of ecosystemic capital. By the time issues of evolutionary capital are considered, we are no longer dealing with any "thing" but rather with the pure patterns of change that describe the processes through which complex dynamic systems emerge, are sustained, and continue to develop. If these patterns are not crippled or compromised in some way, the system is likely to continue evolving (Laszlo & Laszlo, 2004).

Carrillo (2004, p. 39-40) discusses some of the implications that the transition from the material-production era to the knowledge-production era will have for the way we organize human activities. Two of these changes are dematerialization by a decrease in the volume of material inputs and outputs, and a greater concern with sustainability. These two trends can be perceived in the progression of the nine types of capital here discussed.

As mentioned earlier, the nine types of capital also map over to the interrelated set of three strategic dimensions of business management; that is, the integrated triple bottom line. Natural, ecosystemic, and evolutionary capital all factor most directly into the environmental bottom line. Intellectual, human, and social capital tend to factor strongly into the social bottom line. Manufactured, technological, and financial capital primarily factor into the financial bottom line. Of course, given the interrelated nature of the triple bottom line as well as the interpenetration of the nine types of capital, this mapping does not have anything that even closely resembles a one-to-one correlation. Technological capital, for instance, clearly factors into both the social as well as the environmental bottom lines, in addition to the financial bottom line.

By and large, classical conceptions of capital formation focus on the generation of financial and manufactured capital, occasionally including intellectual capital in their purview. Evolutionary development, by contrast, considers all nine dimensions.

Monterrey: From Forum to Knowledge City

A culture of learning is both a path and a destination when considering the creation of a sustainable learning society. Although government and industry can develop and implement strategies for transformation toward a knowledge city, the creation of a sustainable learning society requires bringing people together to define the paths that make sense to them through dialogue so that they may determine the ways that are meaningful and feasible given their culture, situation, talents, values and aspirations. The creation of a sustainable learning society begins by enabling and empowering individuals in community so that they may develop the competencies and sensibilities to meet their personal, economic, social, and environmental needs.

The northern Mexican city of Monterrey has developed the strategic vision of becoming a knowledge city by the year 2020. In other words, the intention is to increase the GIP of the state of Nuevo Leon through industries and economic activities that create an economy of knowledge. The state's government website defines a knowledge city as a geographic territory where government, business, and society devise a strategic plan for the common purpose of building a knowledge based economy (Monterrey Ciudad Internacional de Conocimiento, 2005). This definition speaks directly to the first purpose of KBD: economic prosperity. Other parts of the same webpage mentioned that a knowledge city also involves the empowerment of citizens as knowledge creators and innovators. This speaks to the second purpose of KBD: human development. However, from the actual initiatives being developed with government and universities, the design objective being pursued is that of a technopolis.

As part of the overall strategy to transform Monterrey into a knowledge city, the state of Nuevo León offered to host the second Universal Forum of Cultures in 2007. The first iteration of this UNESCO sponsored global event took place in Barcelona in 2004. The Universal Forum of Cultures "summons people instead of countries or governments; it is the civil society that reflects on the problems and challenges of humanity with the purpose of improving the well being of the present" (Forum Monterrey 2007, 2006). The three main themes of the Forum Monterrey 2007 will be 1) cultural diversity, 2) sustainable development, and 3) conditions for peace.

The Forum Monterrey 2007 will be a 3 month event held in the Fall. Although the Forum will attract thousands of international visitors, it is of great importance that the citizens of Monterrey participate actively in the dialogues leading up to, and ongoing throughout, the Forum event itself. Only through such dialogues will it be possible to catalyze socio-cultural change and improvement of the lives of the denizens of Monterrey beyond the duration of the Forum. Since Monterrey is now facing the transition from an industrial to a knowledge city, the Forum offers an opportunity to capitalize from the throughput of knowledge, resources, and people that can accelerate this important transition.

Given the purpose of the Forum, the central role dialogue is clear. Jorge Angel Diaz, the Director of Dialogues for the Forum Monterrey 2007, expands the meaning of a dialogue from the actual communicative exchange between two or more people to also include the dialogue that each of us can have within ourselves when we engage with an author (through reading his or her writing) or by appreciating a work of art (Diaz, 2006). Dialogue means thinking together, and there is no better or more appropriate way to learn about topics of collective self-interest.

The ultimate purpose of the dialogues is to go beyond an enjoyable experience by "creating consciousness, introducing questions, to spark an interest in people to search for answers to questions they had never before paid attention to" (Diaz, 2006). The dialogues will go range in focus from local to global, starting with themes that are fundamental to the people and the city of Monterrey.

One strategy suggested to implement the large scale involvement of citizens before, during, and after the Forum is through the creation of Evolutionary Learning Communities (Laszlo & Laszlo, 2000; K. Laszlo, 2001). ELCs serve as spaces where citizens from diverse backgrounds and perspectives representing all sectors of society get together to learn, develop their capacities, and identify opportunities for collaborative action with direct impact in the improvement of their quality of life, the creation of a positive future and an increase in life-affirming opportunities (Laszlo & Laszlo, [2006]). The dialogues within ELCs are oriented to the democratization of learning for evolutionary development. ELCs represent both a strategy and a process for the creation of the social fabric that can enable the transformation of a population such Monterrey into a knowledge city, not only from an industrial and technological perspective, but also from a human, social, and ecosystemic one.

The vision of the type of dialogues to be fostered within the Monterrey ELCs (or MELCs) is of multi-sectorial gatherings (including marginalized residents, union workers, academics, professionals, women and youth, to mention but a few) that are open to the participation of anyone interested in the opportunity. These dialogues will promote:

1. The creation of a sense of belonging to the community through the development of interpersonal connections that are meaningful and lasting;
2. The acquisition of knowledge and the development of skills through mutual support, the sharing of ideas and experiences, and access to learning resources;
3. The generation of solutions and action proposals that will be the source of self-empowerment of the participants as social change agents in their communities.

The MELCs will be explicitly oriented to evolutionary learning. In other words, their learning strategy will seek to generate personal, social, and environmental transformation for sustainability. The assumption behind the methodology underpinning the ELCs is that there is a collective wisdom that needs to be activated and accessed so that people can step forward to give solution to their own problems as well as to create new possibilities for their future. (For more on the methodology used to design, develop, and cultivate ELCs, see A. Laszlo, 2001 and A. Laszlo, 2003b.)

In short, the Monterrey Evolutionary Learning Communities provide a means to:

- Ensure that the dialogues initiated by the Universal Forum of Cultures, inspired by themes of development and culture, reach a level of profundity appropriate for meaningful learning and commitments for actions to improve the personal, social, and environmental context of the participants;
- Promote a culture of dialogue, learning and creativity as part of the transformation towards a knowledge city;
- Provide the basis for the ongoing self-directed sustainable development of the citizenry through evolutionary learning dialogues that continue well beyond the end of the Forum.

The strategy using ELCs to achieve these goals provides a way of bringing connection and meaning to the lives of people who otherwise may feel they have no way of contributing significantly to society. It enhances the purposes of both economic prosperity and human development by providing a compelling vision of a sustainable future to which every citizen can contribute both in its design as well as in its implementation. The projects and initiatives derived from the learning and design that takes place in an ELC may be social or business enterprises. However, the common focus is always on ethical social innovation (Laszlo & Laszlo, 2002) since the invitation to learn and participate in dialogue goes beyond individual economic self-interest.

Diaz (2006) emphasizes that, as a result of these dialogues, "it will be possible to take certain clear actions in the future. That will be possible because opportunities will be generated. We will see horizons from which we may construct; the platforms on which we'd stand will allow us to know where we are and what our possibilities are. At the end, we will propose solutions for some of the dilemmas of humanity."

Conclusion

The evolution of the field of KM has led to the expansion of focus and the application of KM principles to foster knowledge based development. In the process, three independent purposes of KBD have been emerged as commonly held orientations that now need to be recognized and consolidated as interdependent objectives required for successful (and sustainable) development strategies: economic prosperity, human development, and social and environmental sustainability. New sources of value and corresponding forms of capital can be identified to respond to this expansion in the scope of KBD in order to enable full-fledged Evolutionary Development strategies. The case of the city of Monterrey, both as a knowledge city in the process of its own becoming and as the host for the Universal Forum of Cultures, presents an opportunity to devise strategies that include the three newly intertwined purposes of KBD and the nurtures the nine types of capital through dialogic approaches that foment Evolutionary Learning Communities as citizen networks dedicated to the creation of a sustainable learning society.

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Notes

The comparison of the American and European "dreams" is presented as an illustration of an over-arching pattern and should not be interpreted as a generalization that ignores the many promising counterfactual initiatives in the US that seek more sustainable ways of living. See, for example, the work of the Center for a New American Dream (www.newdream.org) and Redefining Progress (www.redefiningprogress.org).

The notion of "affordances" relates to qualities inherent in a situation or in an object's sensory characteristics that permit specific kinds of uses. For example, a button, by being slightly raised above an otherwise flat surface, suggests the idea of pushing it. A pool of water in the forest, with its gentle sounds and refreshing atmosphere, suggests relaxing or breathing deeply for a moment. A chair, by its size, its curvature, its balance, and its position, suggests sitting on it.