Redesigning education for the future

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Abstract

This article presents the innovations occurring in the context of education, in regard to basic principles that can be adopted in all disciplines. In the future our suggestion is that education methods should incorporate the principles of systemic thinking and the Global Compact of the United Nations, from which derive the principles for a comprehensive education, discussed in the pages to follow. The text also details the active participation of Brazil in global forums to discuss the new principles for education, clarifying its important role in the discussion and dissemination of important global initiatives.

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1. Introduction

Facing the new challenges imposed by our society, it becomes essential to rethink education in teaching, particularly in relation to higher education focused on business, such as administration, accounting sciences and economic sciences. This paper proposes a new concept for the subject, from an approach adopted by the United Nations as well as the practical experience of the authors, to participate in a comprehensive debate involving stakeholders: companies and organizations, government, academic and youth.

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2. The end of an era

Peter Senge (2014) stated the end of the industrial age, which does not instantly imply the emergence of a new era, but a transition. Fritjof Capra (1984), in turn, points out that: "Our obsession with economic growth and the values system that underlies it created a physical and mental environment in which life has become extremely unhealthy." According to the author, we are living in a paradigm shift, being today the turning point of society, the Cartesian paradigm to systemic design. However, the author’s "today" refers to many years ago, which only shows that the ongoing change is very complex and some more time will be required for the new culture to be established, or rather some new cultures, in order to verify it with the centralized model of American culture. Such transformations are structural, they are processes that are slowly updating and changing, although generating profound impact in society as a whole. After all, companies cannot succeed in societies that fail.

Society is undergoing fundamental changes, which are more easily identified in the workplace. With the introduction of customized services, changes in business organizational characteristics strongly affect the way we understand "work". Traditional plants are becoming old-fashioned and work units are fundamentally changing with the introduction of machines and outsourcing services. Changes felt in the career plans, due to this process, are a particular challenge for education, as the needs of society have distanced themselves from the old model adopted in industrial production. Reforms in education are necessary and should be considered in this new society that is on the making.

The teaching profession also faces the challenge of providing quality education in the new models of the XXI century. The economic, social, scientific and technological needs must adapt to the introduction of sustainable development.

It is important for a country to understand how to be successful, therefore it's crucial to identify the knowledge that will be essential to this new era. In this sense, it seems clear to many that education methodology needs to change and that new principles need to be adopted, since the current education system is still built on principles that are already outdated.

3. Tools for the education of the future

In this scenario, the perspective of a systemic vision teaches us to understand the problem as a whole. As companies started to received inputs from other segments of society (stakeholders), schools should also encourage such behavior. Particularly, NGOs also need to be more participative in the schools, encouraging discussions about topics of interest to society, this is a huge opportunity for interaction by NGOs, especially by those who defend their causes in the dialogue with companies and government. We need to work together, as we did in the past, as Peter Senge states in his last work, The Dance of Change: The challenges to sustaining momentum in a learning organization (2014).

The challenge for higher degree education teachers has been posed: how to reflect on their courses the significant changes that have affected our society, especially in the last five years. For example, the issue of NGOs expressed in the previous paragraph, or in which way the electronic social networks was introduced in their disciplines.

The information society has created new communication mechanisms. Anyone with a video camera, a web site and an opinion can post a subject. This fact must necessarily to be reflected in our educational system. We need to guide students on how to use such tools. Teachers, therefore, need to understand the dynamics of this kind of environment and also make use of blogs and electronic social networks in order to maintain communication at the level of their students.

My experience on teaching suggests the improvement of some essential skills to further develop education in primary and advanced levels. The birth of a new thinking in business schools, in turn, is critical to place ourselves more assertively in the economic world context.
4. Understanding the Global Compact

In order to contextualize the reader briefly, the Global Compact is an initiative developed by the United Nations. The goal of the Pact is to mobilize the international business community to adopt in their business practices the internationally accepted core values in the Human Rights, Labor Relations, Environment and fighting corruption. It is interesting to note that the United Nations, through the Global compact, are increasing their dialogue scope, by including companies as the core of the project.

As companies started to pursue a solution to manage their growth responsibly, the Global compact was able to draw the interest of companies from different industries groups and geographic regions, ranging from major multinationals, to small companies with local operations.

This Pact, by itself, is a voluntary initiative that seeks to provide guidelines for promoting sustainable growth and citizenship through corporate leaderships which are engaging and innovative. The ten principles are derived from the Universal Declaration of Human Rights from the International Labour Organization on Fundamental Principles and labor Rights, the Rio Declaration on Environment and Development and the United Nations Convention against Corruption.

- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights.
- Principle 2: make sure that they are not complicit in human rights abuses.
- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
- Principle 4: the elimination of all forms of forced and compulsory labor.
- Principle 5: the effective abolition of child labor.
- Principle 6: the elimination of discrimination in respect of employment and occupation.
- Principle 7: Businesses should support a precautionary approach to environmental challenges.
- Principle 8: undertake initiatives to promote greater environmental responsibility.
- Principle 9: encourage the development and diffusion of environmentally friendly technologies.
- Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

5. Principles for comprehensive education

As educational institutions are involved in the present and future citizens education, such as business managers, the institutions joining the pact for education shall participate in a process of continuous improvement of the following principles:

- Purpose: To develop students’ skills to be future generators of sustainable value for business and society in general and to work for an inclusive and sustainable global economy.
- Values: Include in the academic activities and curricula the values of global social responsibility presented in international initiatives such as the Global pact of the United Nations.
- Method: Create molds, materials, processes and environments that enable effective learning experiences for responsible leadership.
• Research: Commitment in conceptual and empirical research to improve our understanding about the role, dynamics and impact of companies in creating values of social, environmental and economic sustainability.

• Partnership: Interact with managers of business corporations to extend our knowledge about their challenges in the pursuit of social and environmental responsibilities and to explore effective ways to address these challenges.

• Dialogue: Facilitate and support dialog and debate among educators, companies, government, consumers, media, civil society organizations and other interested groups and investors (stakeholders) about critical issues related to global social responsibility and sustainability. We understand that our own organizational practices should serve as an example of the values and attitudes we pass on to our students.

The goal is to encourage the alignment of business policies and practices with the values of universally agreed goals which are internationally applicable, by also encouraging other academic institutions, associations and organizations to adopt and uphold these principles.

6. An evolution in the way: the use of learning goals

A system of educational goals to identify suitable teachers eligible for bonuses in cash is being discussed in some states and cities in Brazil; mainly São Paulo and Rio de Janeiro, being a desirable way to improve the teaching. These goals, if adopted, may restore the responsibility of the teacher, who will strive to improve the conditions of schools. The state of São Paulo since 2009 adopted the salary bonuses to teachers who improve student achievement, based on a pre-established goal. Minas Gerais and Pernambuco will also apply similar measures. However, it is necessary to adopt a system which would enable to evaluate the results of teachers, according to their conditions. i.e., it is preferable to adopt goals for each school individually rather than to take up universal goals. Teachers often feel degraded by the lack of support and poorly equipped schools to deal the environment they work in. The more teachers with proper recruitment and training, wages and compatible benefits with those activities that require similar specific qualification, the better working conditions and opportunities for development and promotion are our key challenges.

During the development process, it is important to ensure the participation of all stakeholders in the debate, including politicians, teachers and their organizations. Social debates will help to build consensus for a more efficient implementation of “teacher’s policies”. We are witnessing dramatic changes in higher education degrees, such as the crescent number of people taking it, especially in the developing countries, it's increasing commercialization (trading), as well as training with a greater focus on business needs. Despite all controversial debate, the important growth of information technology and communication is at hand; and finally, it hangs towards the internationalizing of education, which entails greater flow of students and academic staff.

It is necessary an investment on teachers and school administrators, particularly the latter, which have been left apart of the debate around this issue. Administrators must possess the tools in order to motivate school teachers; only then a greater goal will be achieved. They are the ones who, through their knowledge, lead young children into being more equal human beings with knowledge and capable of demanding and building a better world (Calado & Nadai, 2008).

In Brazil, many of our teachers face serious danger in the classroom, since students members of gangs threaten them demanding money and protection against drugdealers from favelas and sometimes from the police. Many of them still exposed to inhumane circumstances in developing countries, where children of different age groups attend to the same classroom, since there are not enough qualified staff to meet the demand. We can conclude that one reason why children drop out school is because they do not find the necessary encouragement to continue studying since the circumstances are so unsettling, the education level is low and the infrastructure is almost nonexistent. It makes sense to remember the Maslow's hierarchy of needs. According to which, people only focus on certain personal goals when others more relevant have been resolved, i.e., unsafety, unemployment and poor living conditions come before education. Without these issues met to a certain degree, it will be very difficult to make progress in education.
8. Systemic thinking in education
We propose a wisdom by Edgar Morin, integrated, contextualized and responsible for the solution of practical and existential doubts. While fragmented, knowledge offers neither sense nor interest, while responding to questions and natural curiosities of the human being; it creates interest and makes sense. Thus, we agree with Senge (2009), when he puts forward the question: "Learning for what?" And replies: so that schools are able to teach students how to learn, so that public organizations are able to fulfill their role, so that companies can be innovative and creative.

In this discussion, Morin (2003), also offers us inspiration for the educator, which refers to the essential knowledge for good educational practice. We adapted his theory to the follow principles

- **1ºst - Knowledge - Error and illusion**: Do not keep away the error from the learning process, but integrate this error to the process, so that knowledge advances.
- **2° - Knowledge - The pertinent knowledge**: Join the most diverse areas of knowledge against the fragmentation.
- **3º - Knowledge - Teaching the human condition**: We are not only a somewhat. We are more than cultural individuals, we are mental, physical, mythical, biological etc.
- **4º - Knowledge - earthly Identity**: Know that the Earth is a small planet that must be sustained at all costs. Idea of sustainability, land-homeland.
- **5º - Knowledge - Facing the uncertainties**: Uncertainty principle. Teach that science should work with the idea that there are uncertain things.
- **6º- Knowledge - Teaching for understanding**: Human communication should be directed toward understanding. Introduce understanding between school departments, between students and teachers, etc.

Physics, as assigned by the educational programs, for example, is entirely based on axioms, rules presented as stable and permanent, and requires answers to questions that have never been made (Calado & Barontini, 2008).

The policies and actions related to improving access to higher degree education should be based on a holistic view of the system and all its parts - primary education, secondary and higher education - connected with the outside to meet market needs and local and global societies.

The basic or elementary school education is a challenge for Brazil - as a developing country, our goal is to educate all schoolchildren who perhaps today do not attend the classroom.

9. Final considerations
The Global Compact is to assist the implementation of a reliability system of companies focused on corporate responsibility. The huge deficit and social inequalities in our country impart the companies social responsibility even greater relevance. Brazilian society expects companies to play a new role in the development process: they are agents of a new culture, social change motivators and builders of a better society.

In this discussion about educational goals, started in São Paulo and Rio de Janeiro, it would be suitable to consider the principles outlined here. Thus, the education project for the future will include key incentives.

International discussions of the similar importance often take place and focus on issues such as education reform and financial budget that should be applied, become more critical as time passes, since both issues are essential to overcome this deficit today.

It is important to acknowledge that well-paid and content teacher tends to reflect a good education, a range of greater knowledge and better use by converting it into quality education. Of course, it is interesting to adopt mechanisms to motivate teachers to update, performing their work more engaged and committed, such as the application of variable remuneration. But, for that, the role of the director should be emphasized, because in elementary and higher
education in Brazil, there are fixed wages for class hours, with no additional bonuses for teacher performance.

The education goes beyond the classroom. Books, magazines, encyclopedias, internet, "everyday" conversations, lectures and conferences carry information, knowledge and learning in a different way, but no less important. Visits and trips to historic cities which sometimes aggregate knowledge in the classroom are not covered in much depth and / or sometimes children and teenagers do not absorb so easily what is being proposed. In Conferences, the issues are addressed with greater depth of knowledge which leads to those who are present to a superior interest to continue their studies of the subject matter.

In recent times, there has been a need for further education for business professionals. It is these people who, in some cases, in a very near future, will manage reputable companies in the market and will participate helping the Global compact, supporting the cause.

In a more institutional aspect, one self-regulation could be adopted for the education segment. Calado (2013) stats that the more developed schools could suggest the best practices to be adopted by other schools. The most qualified entities could go further, helping public schools to achieve their educational performance. Does it sound too unrealistic? No. Most quality private schools in Brazil already have scholarship programs for needy students. These resources would be better allocated if the school was willing to empower the leadership and teachers at a public school, thus greatly increasing the scope and impact of its work.

Another idea, even in this sense, would be to develop a seal of certification for educational institutions that would introduce in their educational process the precepts discussed here. In a certain way, the use of the seal of the Global Compact would be a kickoff, despite the parentheses (there is not a consistent audit process for the compliance of the Pact by the UN).

References