

EDUCATION FOR SUSTAINABLE DEVELOPMENT IS A GENERATIONAL ISSUE

In Search of an Educational Model
That Will Not Destroy the Planet

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I've always felt that death is the greatest invention of life. I'm sure that life evolved without death at first and found that without death, life didn't work very well because it didn't make room for the young.

Steve Jobs¹

I started working at Cemus in 2000, as course coordinator for the course *The Global Economy*. The first thing I had noticed when I started taking courses at Cemus a year earlier was the energy, the education's wide breadth of perspectives, the heated discussions and the multitude of interesting lecturers. I had found my way to Cemus with the aim of placing my overall studies in an interdisciplinary context. It was only a few weeks later that I discovered that the course had been planned and was run by students. It was an enticing discovery: one day, I too wanted to hold a course at Cemus. I joined the Student Council and at the meetings of the Cemus Board, I discovered a meeting culture where everyone, regardless of position or title, were contributing on equal terms. This challenged me to take myself more seriously.

Those of us who planned and ran the course *The Global Economy* had divergent academic backgrounds within the social sciences, natural sciences, and the humanities. We all had strong visions for

¹ Smithsonian Institution, Excerpts from an Oral History Interview with Steve Jobs, <<http://americanhistory.si.edu/collections/comphist/sji.html>>

the course and did not always agree. Working together as a multidisciplinary team led to many long and often exhausting meetings. At the same time, the result was a unique course which was enriched by our different points of departure and the disciplinary perspectives that we brought into the planning process.

Working at Cemus was an educational experience for all of us. We developed skills that we could not have gained from the rest of our university experience. Cemus gave us the opportunity to grow and to build our capacity to take on the complex challenges that define our age.

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Today's societies stand before challenges that place completely new demands on education and its organization. Consequently, we need to look to suggestions for how to develop models for education which are adapted to these new challenges. University education as well as the present sustainability problems play an important role in shaping the future living conditions of today's youth. Therefore, young people and students need to get involved both in proposing and developing conceivable solutions for sustainable development and in shaping the form and content of their own education. The educational model of Cemus makes possible an interdisciplinary and student-run education that maintains a high academic standard and has a strong connection with research. At its best, Cemus is an intense and creative educational environment which brings out the best in people and encourages citizenship, the sense of global responsibility, critical thinking, and the creativity that is needed to make our societies sustainable.

Today's Challenges Create New Demands for University Education

Today's education is inadequate! The voices are heard ever more often, ever stronger, from different directions and for different reasons. The global economic geography is being repainted in powerful

and often tumultuous upheavals. Corporations change their home base, move, or close their production. Previously competitive regions and nations are knocked out while others grow stronger. The rate of technological development is constantly speeding up and places new demands on continuous learning. In order to maintain its prosperity and position in the global economy, Sweden and other wealthy countries invest in becoming “knowledge-based economies,” “service industries,” and “regional innovation systems.” People in other nations—who do not have access to the same resources—are marginalized and stand at risk losing their means of sustenance.

Over the next thirty years, more people across the world are expected to earn academic credentials than all previous generations combined. At the same time, according to Education Consultant Ken Robinson, we face a dilemma. Even though an increasing number of people get ever more advanced degrees, they still do not possess what the organizations and corporations of today need the most, namely, the ability to communicate well, to cooperate, and to think creatively. New, knowledge-intensive forms of work build on completely different skills than did the earlier industrial economy for which our current education system was developed.²

It is not necessarily the responsibility of academia to adapt itself to fulfilling the economy’s need for a trained work force with specific skills. Universities and colleges cannot however remain indifferent when the educational system of which they are a part, from pre-school to graduate school, is not adapted to the needs of today, and in particular, of the future. The educational system of today activates only a sliver of the human intellect and thereby keeps people from reaching their full potential.

At the same time as an increasingly globalized economy has changed the conditions for people, regions and corporations around the world, we find ourselves in the midst of a social and ecological crisis. We hear, from many directions, that the very conditions under which civilization has developed and to which life on earth has adapted are threatened. The way in which humankind responds to

2 Robinson, *Out of Our Minds: Learning to Be Creative*, Oxford, Capstone, 2001.

climate change, the way in which we renew vitality to overburdened ecosystems, and the way in which people are given room to rise out of deeply entrenched and systematic poverty are therefore some of the questions that set the tone of our age. The legitimate question of competitiveness for a few privileged regions must be understood within the greater context of a fair and ecologically sustainable global development.

To meet these challenges and making the switch to sustainable development requires deep, structural transformations in how societies develop and generate prosperity. Our social, economic, technological and cultural systems stand at the threshold of a transformation of a magnitude similar to that of the industrial revolution. Previous and contemporary models of development have created wealth for a small but growing number of people in a way which has seriously damaged the planet. Desperately clinging on to “business as usual” will force our social and ecological systems to collapse. A little polishing on the edges of a system that is fundamentally unsustainable is simply not enough.

This is the new surrounding world to which the educational system must adapt, and during the transition to sustainability, universities have a central role to play both through research and education. During the lifetime of today’s students, decisive steps will have to be taken towards this transition. Education therefore needs to provide knowledge, tools, and experience which make it possible to make sense of and operate within a rapidly changing world in which the current strategies of leadership and management no longer work. It has to make room for reflection about complex ethical positions and to stimulate an active citizenship and a sense of global responsibility. It also needs to open up for envisioning various future scenarios and for formulating novel solutions and strategies that can make a sustainable global development possible.

In this context, education for sustainable development has grown strong and become established both at individual universities and in the national legislation. There is still, however, a great gap between what the future demands and what today’s education can provide.

Education for Sustainable Development is a Generational Issue

When discussing education, we must start by asking ourselves what we *really* want to achieve and what kind of world is maintained through our *current* ways of conducting research and education. Education and its view of knowledge shape our understanding of the world and frame our view of what is possible. It affects our ability to understand and meet the problems of today and tomorrow. At present, we have inherited an array of problems that our educational system, through its content and topics, as well as its form and organization, has been part in creating.

Students of today will live for a long time in the world which their education contributes to creating, and they will suffer the greatest consequences if we do not succeed in breaking the unsustainable trends of today. Today's young people will also play the leading role in arriving at and implementing solutions for an attractive, fair and sustainable future. Education for sustainable development is therefore a generational issue. In the thirty-year edition of the classic *Limits to Growth*, Donella Meadows, Dennis Meadows and Jørgen Randers summarize the situation as follows:

The generations that live around the turn of the twenty-first century are called upon not only to bring their ecological footprint below the earth's limits, but to do so while restructuring their inner and outer worlds. That process will touch every arena of life, require every kind of human talent. It will need technical and entrepreneurial innovation, as well as communal, social, political, artistic, and spiritual invention.³

Because the challenges we face today concern the young generation more than the teachers, researchers and administrators that most often define what is to be taught, this is fundamentally a question of democracy. Of course young people, whose future is invested in a sustainable world, have different priorities than people whose careers and identity depend on maintaining the status quo. "Man has a tendency to preserve established systems whether they make sense

3 Meadows, Randers and Meadows, *The Limits to Growth: the 30-Year Update*, Chelsea Green, White River Junction, 2004.

or not,” remarks the Icelandic author Andri Snær Magnason. “A longing for security and fear of change and uncertainty make people hold fast to the existence they know, however unreasonable it may be.”⁴ Consequently, young people and students, who have not yet found a place within the established system, need to become genuinely involved in developing the content of education as well as its organization.

It is also difficult to determine what kind of knowledge and skills will be needed in the future. It is therefore urgent that education becomes more a process of common and mutual learning than simply conveying of information from teacher to student. To give the students an active role as producers of knowledge is also important, since we today lack the technical, social, political and cultural solutions and strategies required to attain a sustainable development. The learning process must involve the students in visionary and creative thinking, processes in which there is space to create new possibilities and options.

The Cemus Model Makes a Creative and Student-run Education Possible

Education for sustainable development thus involves substantially more than simply supplementing existing educational programs with a few new perspectives or bits of content. It also demands in-depth changes within the form and organization of education. We are forced to challenge traditional conceptions about how education is best organized, what subjects should be covered, and the role of students and teachers in this context. This opens for greater experimentation, for moving outside existing areas of expertise and envisioning ways in which education (and research) can be fun, intellectually sharp and deeply meaningful.

Through the years, Cemus has developed a model for creative university education that transcends boundaries not only between

⁴ Magnason, *Dreamland: A Self-Help Manual for a Frightened Nation*, London, Citizen Press, 2008.

50 | students and faculty but also between different academic disciplines. The model makes it possible to organize interdisciplinary, participatory processes of education in which students have the opportunity to practice their skills in communication, collaboration, critical analysis and creative thinking: skills which are crucial to doing well not only in a Swedish knowledge-based economy, but also to be able to contribute to a sustainable and fair development on a global scale. The model puts the student at the center and has four important components:

COURSE COORDINATORS

Two or three students are employed by Cemus to plan, administrate and run a university course as a project. They often work with a course which they themselves have already taken. The course coordinators plan the general structure of the course, put together a reading list, and invite guest lecturers. They lead seminars and handle the administration of the course.

COURSE WORK GROUP

For each course, a work group is formed which consists of researchers, teachers and sometimes also practitioners from different fields and subjects. The course coordinators work in close collaboration with the work group throughout the planning process. The work group comes with suggestions for literature and possible lecturers, and give feedback on the course coordinator's proposed structure, literature and schedule. The course work group is responsible for the examination of the course.

GUEST LECTURERS

The backbone of the course consists of a multidisciplinary lecture series. The course coordinators invite guests from different academic subject areas as well as practitioners to teach at the course. The guests are invited to Cemus because they are passionate about their subject,

because of their knowledge and their pedagogical competence. This results in engaging lectures and a participatory discussion climate.

THE ORGANIZATION AT CEMUS

Cemus' organization supports course coordinators in their work. The organization consists of a Director of Studies, an Educational Coordinator, Project Assistants, and a Program Director with experience from both teaching and research.

The work with the courses at Cemus, especially the work group meetings, brings together students in their capacity as course coordinators with researchers and university teachers in a common work process. This leads to mutually enriching meetings between researchers and students. The course work groups also bring together teachers and researchers (and sometimes practitioners) from various disciplines who would otherwise not meet or take part of each other's research and perspectives. In this way, work groups also fill an important role as an arena for multidisciplinary meetings and exchanges at Uppsala's two universities. Hopefully this will catalyze further interdisciplinary research and education at the two universities.

When Uppsala University and the Swedish University of Agricultural Sciences began experimenting with student driven education through Cemus, the focus was on offering complementary evening courses. As the years have passed, Cemus has grown more institutionalized and sustainable development has grown from a peripheral subject to a main field of study. The educational model has shown to be sufficiently flexible to work both for the purposes of complementary evening courses and for the purpose of full-time courses and courses at Master's level.

The model makes it possible to always take a point of departure in what is required to provide the best possible educational process. We are not locked into a certain department's available array of faculty members, and we do not need to take into consideration the need for lecturers to fill their quota of teaching hours. Instead, we

can invite a broad group of teachers who are all specifically selected because they have an important contribution to make to the course. This flexibility has been especially important when, by means of interdisciplinary courses, we have tried to break and bridge the disciplinary boundaries that are still firmly cemented within Uppsala's two universities.

To hire students to plan and run education is also a cost-effective means of setting aside more time for coordination of courses. The great resources we have available for planning and coordination make it possible for us to put time into experimenting with new didactic methods and working out a clear course structure in the planning stage. Every time the course is taught, the planning process begins anew, often with new people, which leads to a constant renewal of the courses.

During my years at Cemus, I have seen how this organizational format makes it possible to provide an education that is unique in both form and content. The main aspects of the courses' form and content are summarized in the table below.

CONTENT	FORM
<ul style="list-style-type: none"> • An interdisciplinary approach • Critical and creative thinking • Systems thinking • Ethics and values • Power relations • Problem-based learning 	<ul style="list-style-type: none"> • Students are seen as producers and not just consumers of knowledge • Participatory and a wide variety of teaching methods • Reciprocity and little hierarchy between students and teachers • A wide range of lecturers from different academic fields and professions

As I mentioned earlier, there is an inherent value in students being given the opportunity to actively work on their own education. For the students who have had the opportunity to work here over the years, Cemus has been a fun and educational work environment. As a course coordinator and Project Assistant at Cemus, I have learned many key skills that my traditional academic education has not been able to give me. I have learned to cooperate, to lead projects, to hold meetings, and to lead discussions. At the same time, I have also gained a deepened theoretical knowledge and a broad understanding of sustainable development. I am convinced that my Cemus experience, more than any other part of my time at the university, has prepared me for the rest of my professional life.

Every year, about 20 course coordinators collaborate at Cemus, and they go through the same in-depth development. The learning curve is steep in the beginning. Because each course is planned as a free-standing project, one must be in control of the entire process, from content and pedagogical approaches to budget and administration. Cemus has high expectations on its employees—the goal is after all to provide the best university education in the world—but has, through clearly defined objectives, a feeling of common ownership of the entire program, and has through a carefully weighed balance between freedom and structure found a process that makes for results that usually exceed the expectations.

The flow of people at Cemus leads to a continual renewal of ideas. Cemus brings together people of different backgrounds and values but with a common interest in the future of the planet. They make contacts and learn to work together. Visions, experiences and knowledge are exchanged formally within the work with the courses but especially informally at coffee breaks, visionary evenings and through friendship ties. This makes Cemus a dynamic, fun and continually challenging work place. This keeps the the organization and its activities up-to-date and prevents it from stagnating.

Creative (Educational) Environments for an Education That is Adapted to the Future

The organization and educational model of Cemus has always been an end in itself. It changes and is continually redefined as both internal priorities and the surrounding world changes. We strive to create an environment and an organizational format which makes possible renewal, efficiency, and quality and which can produce an education that is adapted to the challenges of today and of tomorrow.

This leads to the question of how to create (educational) environments that bring out the best in people. In order to discover possible paths toward a sustainable society, one needs organizational forms which makes it possible to see beyond the reigning paradigm and to formulate new possibilities. Innovative environments—both within academia and elsewhere—which encourage creativity as well as critical thinking and make possible collaboration across disciplines, will play a decisive role in the work toward sustainable development.

This is not the first time we stand before a paradigm shift. Human societies have through all ages gone through deep crises and transformations. Economic Geographer Gunnar Törnqvist has studied times and environments that were unusually creative in order to pinpoint distinctive features of places where genuine changes have taken place.⁵ He notes the importance of diversity, conversation, playfulness, mobility and capital. Above all, structural instability—turbulence, chaos, and institutional formlessness—seems to be a central prerequisite for renewal. Carefully regulated and planned environments have seldom been creative in a deeper sense. A dynamic balance between playfulness and discipline, as well as between structure and chaos, makes it possible to find new connections and solutions and to implement them.

It is also not the case that whole cities, regions or universities are creative and innovative. It is rather separate institutions, departments or smaller research groups within the greater units that

⁵ Törnqvist, *Kreativitet i tid och rum: processer, personer och platser* [*Creativity in Space and Time: Processes, Persons, and Places*, free translation], Stockholm, SNS Förlag, 2009.

within a certain time span are centers of renewal, often challenging authorities and the the rest of the hierarchy. These environments are often distinguished by being small-scale, since the intensive communication that is demanded in a process of renewal cannot be carried out within a too large circle. At the same time, creative environments are part of a greater community and have made strategic contact with other environments within more comprehensive networks.

Cemus has emerged from a dynamic process over the past twenty years, as a cry for renewal but at the same time with the strong support of the existing departments at Uppsala's two universities. It is difficult to consciously create a creative environment. It is however, as Gunnar Törnqvist points out, easy to destroy one by introducing strict regulations and control. As sustainable development grows as an academic field and Cemus grows as an organization, it is therefore important to maintain the freedom, playfulness and open communication that distinguishes the organization and have taken us to where we are today.

Universities and education stand before challenges that cannot be met by simply adding an extra perspective or course module within the regular educational program. In order to meet the demands of a growing knowledge-based economy, but first and foremost to make possible a fair and sustainable global development, we need a structural change in how knowledge and education are produced and who is allowed to influence these processes. Experiences from Cemus can provide inspiration as an example of how education can be organized to meet the needs of the future.

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