Wide angle

Climate Emergency:
Is the Higher Education Response up to the Challenge?

Faced with climate change, students are calling on higher education institutions. They want their studies to prepare them for the challenges of the present and the future, but they also demand that higher education institutions play a greater role in our societies' ecological transition.

As climate change now puts "life on the planet under siege" (AFP, 2023), younger generations face a dark and uncertain future. According to a recent survey, nearly 80% of young Canadians aged 16 to 25 report that climate change has an impact on their mental health (Galway & Field, 2023). Anxiety and feelings of anger, injustice and helplessness even lead some young people to call into question their own study projects. Climate emotions can also be a great driver of action for change (Rossato, 2023).

Are you concerned about the commitment of higher education institutions to environmental matters?
The following avenues for reflection come from a selection of scientific articles recently published on the subject. From different disciplines, they offer complementary points of view on :

- institutional issues;
- curricular issues;
- issues concerning the relationships between education and climate action.

Observatoire sur la réussite en enseignement supérieur

ORES

1 A Genuine Institutional Commitment or a Mere Facade?

Summary of the reflections formulated by:

- Alaina Kinol and colleagues, from the Northeastern University School of Public Policy and Urban Affairs (Boston) (Kinol et al., 2023)
- Sharon Stein, Specialist of Educational Sciences at the Centre for Climate Justice, University of British Columbia (Stein, 2023)

Many higher education institutions have ramped up their environmental commitments in recent decades, in several cases bringing them closer to UN Sustainable Development Goals. **Are these commitments enough? Are they adequately addressing the challenges posed by the super wicked problem that is climate change?**

> Stein explains that a **super wicked problem** "is, a problem for which: time is running out; those who cause the problem are the ones seeking to solve it; there is a weak or non-existent central authority to address it; and many responses discount future impacts." (Levin et al., 2012).

Criticisms of Higher Education Institutions

Higher education institutions face criticism on multiple levels over their commitments to climate change. **Stein identifies three emerging critical angles:**

- **Greenwashing: Superficial and symbolic actions intended to project a good image of the institution, and which in no way call into question the ways of doing things which are at the source of the problem.**
  Stein points out that universities themselves profit from an economy based on the infinite growth of production and consumption, in contradiction with the limits of the planet. Although they are involved in climate change research, they are also involved in technological and scientific development that keep us on the hydrocarbon path. Furthermore, while it is true that institutions have stepped up their commitments to carbon neutrality, their plans are often focused on offsetting rather than on reducing emissions, which does not contribute to the overall reduction of the latter on a global scale.

Climate colonialism: Solutions that ignore the colonial roots of the climate issue and the global inequalities exacerbated by the crisis.
Climate change comes with growing socio-economic inequalities and increased concentration of wealth, both globally and within countries. Climate injustice means that the populations who have contributed the least to climate change are also those who suffer the most from its consequences. Stein explains that the offsetting strategy that consists in purchasing carbon credits does not contribute to changing production and consumption patterns in rich countries, all the more so since it is actually the cause of forced displacement and dispossession for local populations in southern countries, particularly indigenous people.

Technological solutionism: An approach that tends to "reduce climate change to a purely technical problem," which invisibilizes its social, political and economic structures that cause and maintain the very problem (Stein, 2023).
Institutional policies, including in higher education, too often focus on a technocratic approach centred on technological solutions (carbon capture and sequestration, electric vehicles, green hydrogen and so on). Based on the simplistic belief that every problem has a solution, this vision, although comforting, is completely inappropriate for understanding a problem as complex as climate change. Kinol and her colleagues also highlight the great imbalance of investments in favour of research in physical sciences and in technological innovation, to the detriment of research, innovation and social infrastructures, as well as climate justice measures.

A New Paradigm is Needed... but Which One?

For Kinol and her colleagues, higher education institutions must recognize that the climate crisis is "a symptom of a global socio-economic and political dysfunction," and must rather think in terms of "climate justice."

Their article presents two existing, well-documented, frameworks that can inspire higher education institutions in the development of their institutional agenda:

- the “Green New Deal”
- the “Energy Democracy.”

It also provides **numerous examples of how several institutions are putting their commitments into practice within these two frameworks.**

The "**Green New Deal**": This expression is inspired by the "New Deal" policy adopted by the United States government to overcome the Great Depression of the 1930s. According to Kinol and her colleagues, such a climate justice agenda articulates five broad aims, which have different applications for higher education institutions:

- GHG emissions reduction (e.g., eliminating the use of fossil fuels on campuses);
- Just economic transition (e.g., promoting the re-qualification of workers toward green jobs);
- Investments in green infrastructures (e.g., providing the student population with access to natural spaces);
- Population health improvement (e.g., developing a healthy, local food program within institutions);
- Reduction of inequalities (e.g., engaging in community development while avoiding gentrification).

The "**Energy Democracy**": This approach addresses power inequalities around energy issues. According to Kinol and her team, this approach aimed at climate justice is based on three axes:

- Resisting the power of the fossil fuel industry in higher education (e.g., refusing research funds from the fossil fuel industry);
- Demanding democratic participation in institutional decisions (e.g., establishing transparent accountability mechanisms);
- Restructuring higher education (particularly its funding) to prioritize the public good and climate justice (e.g., strengthening ties with communities and groups advocating for climate justice).

To successfully implement a structuring program aimed at climate justice in higher education, Kinol and her team affirm that a substantial increase in public funding is necessary as well as democratic and inclusive institutional governance.

Stein, for her part, laments that the dominant approach in higher education institutions still consists of greenwashing, climate colonialism and technological solutionism. She advocates a more radical transformation that would take us beyond "sustainability" or "sustainable development," and which would aim for the complete exclusion of the notion of profit in our relationship with nature and living things. According to her, the current emergency is to develop our collective capacity to understand change and uncertainty, to repair the errors of the past, and to learn to build relationships based on reciprocity, trust, respect and responsibility.

How can these approaches be embodied in the teaching mission of universities and CEGEPs?

2 What is the Place of Environmental Issues in Curricula?

Summary of the reflections formulated by:

- **Angela Barthes,** Economist at the University of Aix-Marseille, member of the Centre de recherche en éducation et formations relatives à l'environnement et à l'écocitoyenneté (Université du Québec à Montréal-UQAM) (Barthes, 2022)
- **Tristan McCowan,** from the Institute of Education of the University College London (Great Britain) (McCowan, 2023)

While climate issues require transdisciplinary thinking, higher education institutions are strongly structured along disciplinary lines, both in teaching and in research. **What educational stance and practices can teachers adopt to further a global understanding of the challenges posed by climate change?**

Fundamental Questions that Go Beyond Individual Disciplines

Barthes, who has been a witness to the evolution of environmental education since the 1960s, notes that "a large majority of higher education students are still not well trained in these issues despite the acknowledged generalization of the transversality of sustainable development objectives in university training." From a more philosophical perspective, McCowan believes that climate issues bring us back to **fundamental existential questions** that can be addressed in an array of disciplinary contexts:

- **Who are we?** (ontological questioning)
  Education must allow us to reflect on the notion of interdependence between human beings and the natural world and the rest of the living, to question the modern Western dogma based on the domination of nature and to open our mind to alternative ontologies (e.g., "buen vivir," from the Andean Indigenous philosophy).

- **What do we know?** (epistemological questioning)
  In a context of information overload, according to McCowan, it is important to increase scientific literacy, to learn to decode information on climate change (to separate facts from values) and above all to begin a process of epistemological decolonization, in particular by opening up to Indigenous and non-Western knowledge.

What is a good life? (axiological questioning)
Climate injustices are facts, but the implications they entail bring values into play. What model of social organization should we favour? What restrictions on individual freedoms are acceptable? Is it right to prioritize maintaining the lifestyle of a privileged minority of the population? According to McCowan, these ethical discussions must take place not only in the humanities and social sciences, but also in science and technology.

Developing Critical Thinking

Barthes is interested in educational practices that can lead to a "potentially mobilizing reflexive stance." Noting that several current educational approaches do not allow an understanding of climate issues and lead to "impoliticism," the author advocates for the intentional and explicit integration of political education into environmental education.

According to Barthes, addressing problems without placing them in their social and political context leads to impoliticism among learners, that is, the inability to understand the issues as well as the inability to "position oneself, or even defend oneself, in the face of situations of injustice" (Barthes, 2022). "Political education" in environmental issues aims, on the contrary, to foster commitment and mobilization.

She proposes a grid for evaluating the potential for the political socialization of different educational approaches. Does the curriculum enable students to develop their ability to:

- Decode the different types of knowledge and reflect on the criteria that determine their validity?
- Recognize the points of view of various stakeholders and the political stakes linked to their position?
- Identify problems based on their causes and consequences?
- Decode the power and injustice relations at play?

For his part, McCowan believes that traditional teaching practices, focused on transmitting knowledge, are insufficient to understand a problem that is as complex and pernicious as climate change. He suggests that teachers integrate two principles inspired by emancipatory pedagogies into the classroom: **critical questioning and deliberation.**

In higher education, **adopting a resolutely politicizing pedagogical approach often means going against the grain**. Activist movements certainly exert an influence on environmental education, but Barthes notes that their political message tends to be neutralized in the process of institutionalization. However, despite limited institutional commitments to environmental issues, McCowan believes that there are still spaces for autonomy within universities where critical thinking can develop. For him, the responsibility of teachers is unequivocal:

> *"teachers cannot 'sit on the fence' and remain neutral in their teaching: they are either liberating or domesticating. In the same way, teachers can (no longer) avoid including climate change in their teaching."* (McCowan, 2023, p. 947).

For their part, how do students leverage their learning into action?

3 From Education to Action, and From Action to Education

Summary of the reflections formulated by:

- **Clément Mangin and Anne-Sophie Gousse-Lessard**, from Université du Québec à Montréal - UQAM'S Institut des sciences de l'environnement (Mangin & Gousse-Lessard, 2022)
- **Benjamin Bowman and Chloé Germaine**, from the Manchester Centre for Youth Studies (Great Britain) (Bowman & Germaine, 2022)

All over the world, young students are mobilizing for the climate. Through this commitment, students create their own equation between theory and practice, between knowledge and climate action. **How can higher education meet the aspirations of student populations, when "young people are aware that the old promises of education no longer ring true"** (Bowman & Germaine, 2022, p. 82)

Understanding the Causes of Climate Inaction

Environmental education aims to develop a “culture of eco-social commitment” (Mangin & Gousse-Lessard, 2022). However, faced with a super wicked problem such as climate change, it must deal with **cognitive obstacles that impede action, while reinforcing inaction or denial.**

Behavioural sciences allow identifying certain psychological barriers in addition to providing educators with ways to foster behavioural changes. However, they tend t**o place the responsibility for inaction on the individual alone, rather than targeting the socio-cultural context in which these behaviours occur**. Mangin and Gousse-Lessard are concerned that the lens of behavioural sciences greatly inspires the design of public policies at present. For these specialists, environmental education must absolutely:

- **Avoid “pathologizing” climate denial:** This attitude exacerbates social polarization and “mistrust between deniers and the scientific community”;
- **Be wary of the “social marketing” approach:** Seeking to influence behaviour without people’s knowledge is an approach that runs counter to the values of awareness and voluntary action at the heart of environmental education;
- **Resist “post-democratic” trends:** In the context of the climate crisis, many voices question the ability of people to participate rationally in democratic deliberation. Yet for Mangin and Gousse-Lessard, the answer to climate inaction is neither the adoption of “stealth policies” nor “ecoauthoritarianism,” which are both misleading shortcuts.

> *“The impasse between deniers and environmentalists does not emerge from an excess of democracy, but rather from a deficit of it”* (Mangin & Gousse-Lessard, 2022, free translation).

For Mangin and Gousse-Lessard, environmental education must "maintain dialogue" and, upstream, work toward "the formation of a solid civic identity and environmental culture." For their part, Bowman and Germaine note that young climate activists are currently shaking up our very ways of conceiving citizenship education.

The Educational Virtues of Dissent

Student strikes have long been a way for young people to assert their political agency. **In the case of climate-related strikes, Bowman and Germaine see them not only as a protest movement, but also as an effort to transform education itself, as well as the entire social, political and economic system**. Through their commitment, students are breaking the traditional and paternalistic vision of learning citizenship, according to which young people are a priori disengaged, and that education leads them to become involved in existing civic participation frameworks only.

Bowman and Germaine, on the contrary, believe that young activists are inventing their own way of understanding the uncertainty generated by climate change. Outside of the narrative frameworks imposed by previous generations, **their mobilization is both a mode of protest and a mode of expression**. Through it, they are building "transformative literacy" skills related to climate change.

The concept of "**transformative literacy**" describes the "ability to understand processes of social change and to situate one's own actions within these processes" (Schneidewind, 2013). For Bowan and Germaine, "transformative literacies" aim to transform society rather than maintain it, by promoting participation and solidarity (Bowman & Germaine, 2022, p. 71).

Bowman and Germaine invite us to **consider youth action as a form of education on climate change**, a place where they learn and build knowledge. For teachers, Bowman and Germaine advise adopting approaches that value the process more than the result, encouraging participatory approaches, making room for emotions, both negative and positive, and assuming that creativity and politics go together.

> *"[The] new outcomes [of education] will need to be formulated in collaboration with young people themselves"* (Bowman & Germaine, 2022, p. 82).

For Further Reflection

- UQAM's Centre de recherche en éducation et formation relatives à l'environnement et à l'écocitoyenneté offers numerous documentary resources, in addition to publishing the only French-language scientific journal specializing in environmental education, the journal ERE.

- In her essay published in 2023, Rosalie Dallaire, a master's student in environment at the University of Sherbrooke, explores the issues and opportunities for integrating environmental education at the college level. Her experimental approach led her to formulate several concrete recommendations for the Québec government, colleges and departments.

- The French website ESResponsable.org, created by the Collectif pour l'intégration de la Responsabilité Sociétale et du développement durable dans l'Enseignement supérieur (CIRSES), is dedicated to networking initiatives, ideas and debates surrounding social responsibility and sustainable development in the French-speaking higher education and research ecosystem.

- The Fresque du climat is a tool in the form of a collaborative activity that allows "individuals and organizations to take ownership of the challenge posed by climate emergency." It can be integrated into various pedagogical contexts.

- The Construire l'avenir durablement (CLAD) project, from the University of Montréal's Laboratoire d'innovation, set up LA REF, a platform that pools eco-responsible resources for training purposes.

- The CLAD project also proposes a series of podcasts on eco-anxiety.

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