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2.4 Sustainability. Reinventing the role and place of HEIs for a sustainable future

Transgressive learning, resistance pedagogy and disruptive capacity building as levers for sustainability

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Abstract

If higher education is to make a significant contribution to the transition towards a more sustainable world, it will need to break the resilient practices of 'business-as-usual' that normalise growth orientation, individualism, inequality, anthropocentrism, exclusion, exploitation and even catastrophes. Doing so requires more than cultivating often-mentioned sustainability competencies and qualities such as handling complexity and ambiguity, anticipating and imagining alternative futures, taking mindful action, having empathy and agency, and so on. It also requires the capacity to disrupt and to learn from resistance to disruption. This contribution introduces and discusses transgressive learning, disruptive capacity building and pedagogies of resistance, such as learning-based counter-hegemonic responses that can unearth and uproot mechanisms of exploitation, oppression, extractivism, colonialisation and marginalisation. Transgression, disruption and resistance will inevitably lead to tensions, conflicts, controversy and discomfort, but this is where critical consciousness and spaces for fundamental change can arise. More hopeful, energising and regenerative cultures can develop when this disruptive work can be combined with participation in social movements and transition niches that provide concrete utopias and viable alternatives

Overcoming systemic dysfunction

It is increasingly recognised and accepted that the current sustainability crisis is deeply ingrained in 'Western', 'colonial' and 'modernist' mental models and the dysfunctional values and relationships (between people and between people and the planet) that they produce on a global scale, even in the most remote places. These mental models, mind-sets and ways of thinking can be characterised by their tendency towards commodification (turning public goods, nature, etc. into tradeable units that have economic value and can be consumed), reductionism (creating boundaries, distinctions, sectors and disciplines), efficiency and accountability (and associated forms of management and control) and competition (celebrating meritocracy, continuous innovation, excellence, survival of the fittest and the implicit acceptance of inequality) and growth thinking (the idea of continuous personal and economic growth).

At least from a sustainability perspective, these maladaptive and dysfunctional qualities and ways of thinking have also become subsumed by our education systems. In many schools and universities these patterns are willingly and unwillingly reproduced and amplified. In a sense, they have become part of what might be referred to as the hidden curriculum of unsustainability. Viewed as such, all education is sustainability education as no matter what is taught, enacted and experienced in our schools and universities, it will always have an impact on sustainability in either a positive or, as is mostly the case today, negative way. This realisation is pushing an increasing number of schools and universities, sometimes pressured by youth movements, to rethink the education they provide.

Sustainability as learning

Sustainability is not the final destination of an agreed product to be achieved or created by humanity, but rather a continuous search for a dynamic equilibrium that will allow all people and fellow species to live well on planet Earth without overstepping ecological boundaries. Sustainability-oriented learning can be described as an organic and relational process of continuous framing, reframing, tuning and fine-tuning, disruption and accommodation, and action and reflection, which is guided by a moral compass inspired by an ethic of care (Wals, 2019). Such learning implies or even demands a certain freedom to explore alternative paths

of development and new ways of thinking, valuing and doing. The notion of transgressive learning and disruptive capacity building is somewhat new in discourses around sustainability-oriented education (Lotz-Sisitka, et al. 2015; Wals and Peters, 2017; Chaves and Wals, 2018). It stems from the realisation that in order to move towards a more sustainable world, it is crucial to critique and transform highly resilient systems, structures and routines that are inherently unhealthy and unsustainable. The quest for a more sustainable world begs two questions: what is it that we need to sustain, in ourselves and in the world, and what is it that we need to disrupt, in ourselves and in the world? The latter question has been much ignored in education, including education for sustainable development.

Optimising what is or transitioning to what might be

Much attention is given to responsiveness, resilience and adaptation in education. After all, prevailing but problematic logic states that the world is changing rapidly and people need to keep up with the changes or they will be left behind. At first sight such logic seems sensible but upon closer inspection it becomes clear that it is, at least in part, fuelled by a neo-liberal agenda and associated economic globalisation. In education this is sometimes masked by concepts such as 21st Century Skills or, more recently, even the Sustainable Development Goals (SDGs). As an example of the latter, SDG 8 calls for 'Decent work for all and *economic growth*' (emphasis mine) and not 'Decent work for all and *a regenerative or circular economy*'. This way of framing leads to an *'optimisation frame'*: one that leaves the underlying values, principles and mechanisms that result in ongoing systemic global dysfunction untouched and, worse still, strengthens them.

Given the urgency of the planetary crisis humanity finds itself in, a crisis which has not been caused by all humans, I should add, a radical response is needed. Instead of the aforementioned optimisation frame, this response requires a 'transition frame', one that can break up maladaptive destructive structures and routines, and their associated values and principles. This dismantling is needed to open up spaces for alternatives that are healthier, more just and equitable, and indeed

more sustainable. Doing so requires more than merely cultivating the often-mentioned sustainability skills and qualities, such as dealing with complexity and ambiguity, anticipating and imagining alternative futures, taking mindful action, having empathy and agency, and so on. Rather, it also requires the capacity to disrupt, to make the normal problematic, the ordinary less ordinary, to provoke and to question, to take risks for the common good, to complicate matters rather than to simplify them, to become uncomfortable – together – by asking moral questions and posing ethical dilemmas, and to learn from the 'push back' and resistance from the normalised unsustainable systems that all the above creates.

Resistance pedagogy

Transgressive learning (Lotz-Sisitka et al., 2015; Wals and Peters, 2017; Chaves and Wals, 2018), disruptive capacity building and resistance pedagogy can be characterised by learning processes and contexts/environments for learning that invite a counter-hegemonic response which unearths and uproots mechanisms of exploitation, oppression, extractivism, colonisation and marginalisation. Resistance pedagogy allows people (e.g. teachers and students) to address injustices and forms of marginalisation and exploitation that they themselves identify, by finding forms and spaces that can oppose the authorities and normalised established systems that are responsible for their existence (Bracher, 2006). In Latin American social movements, resistance pedagogy is often linked to Freire's notion of critical education as a means of helping people "perceive critically the way they exist in the world with which and in which they find themselves" (Freire 1970, p. 64). Critical sustainability education seeks to help students become aware of the social and ecological inequalities that exist in their everyday lives and that are omnipresent in the world, both locally and globally.

Chandra Mohanty adds that resistance lies in self-conscious engagement with dominant, normative discourses and representations and the active creation of oppositional analytic and cultural spaces. She points out that resistance which is random and isolated is clearly not as effective as that which is mobilised through systemic politicised practices of teaching and learning (Mohanty, 1989).

Education as a practice of freedom

bell hooks[1] approaches resistance pedagogy differently, in a way more pedagogically, by advocating "an engaged pedagogy that can counteract the overwhelming boredom, disinterest and apathy that so often characterise the way professors and students feel about the teaching and learning experience" (hooks, 1994, p10). In *Teaching to Transgress: Education as the Practice of Freedom* (hooks, 1994), she argues that education needs to go beyond, or rather stay away from a focus on achieving prescribed levels of some kind of literacy, the development of professional skills and essentially helping students conform to the status quo. Instead she argues that education needs to nurture a reflective and critical stance towards social realities. hooks' engaged pedagogy can be considered a "transgressive" pedagogy in that deep engagement, and indeed excitement, can be viewed as potentially disruptive of the atmosphere of misguided seriousness which characterises so much learning in schools and universities (hooks, 1994). Such excitement, she argues, comes from creating a space for emergence, surprise and an environment of attentiveness to who is there and who is not there and what is happening or what needs to be happening.

While hooks recognises the severe confinements of structures, systems and routines in schools and universities, she also believes that the classroom is potentially the most radical space of possibility, change and transformation. hooks urges educators and students alike to open their minds and hearts so that they can know beyond the boundaries of what is acceptable, so that they can think and rethink, so that they can create new visions. "I celebrate teaching that enables transgressions – a movement against and beyond boundaries. It is that movement which makes education a practice of freedom" (ibid., p22).

Becoming uncomfortable

Going against and beyond the boundaries of what is acceptable as a practice of freedom also requires being willing and able to leave the comforts or routines of our everyday lives, as staying within them minimises possibilities for productive resistance (Kuntz, 2020). For sustainability educators the question is then: how can we create spaces that enable learners to leave their comfort zones, to enter the not yet known and the previously deemed impossible? Kuntz advocates for philosophical inquiry as a means to open up such spaces. A first step of such inquiry is the mapping of what he calls the habitualised conventions of our everyday lives in order to "manifest entry points for differently resistive practices, built on alternative logics, extending a diversity of effects-becoming different..." (ibid., p. 26). He refers to Foucault's ethics of discomfort, which points out the transformative power of feelings of unease, especially among those in somewhat privileged positions. "To operate in terms of flows, disjunctures and dynamic relations... as a resistive practice requires a different ethical articulation; one unbound from the conventional moorings of stasis, synthesis and repetition" (ibid, p. 28). Part of the discomfort, he crucially points out, is that any claims made as a result of such work are necessarily tentative as they fail the conventional test of certainty. Yet, he continues, it is the open-ended nature of potential - what might happen - that generates resistive practice, one that refuses predetermined aspects that are extrapolated from current hegemonic conventions.

Implications for sustainability education

These insights would seem to be crucial for educators with a concern for sustainability. Kuntz ultimately identifies three elements of resistive inquiry: (1) the challenge of mapping "the convention of today"; (2) enacting resistance without being subsumed by the resisted; (3) an ethical obligation to refuse the seductions of prescribing for others even as we perhaps desire a course forward towards a differently encountered today (ibid, p. 29). Mapping the convention of today includes the essential step of being aware of one's own predispositions and the comfort they can provide, while also being mindful of their limitations, if not now then maybe in

1. bell hooks is a pseudonym for Gloria Jean Watkins who, as a writer, chose the pseudonym bell hooks in tribute to her mother and great-grandmother. She decided not to capitalise her new name in order to place the focus on her work rather than her name and on her ideas rather than her personality.

times to come, and calls for maintaining a critical distance and navigating a fine line between holding on and being willing to let go. Again, in the words of Kuntz, it calls "for not allowing presumptions to remain lodged in totalising certainty yet not thinking them fragile enough to be overturned by contingent facts; maintaining a distant view that also addresses the nearby, or the local" (ibid, p. 30).

Foucault (2000), referring to Merleau-Ponty, points out that it is crucial "to never consent to being completely comfortable with one's own presuppositions. Never to let them fall peacefully asleep, but also never to believe that a new fact will suffice to overturn them; never to imagine that one can change them like arbitrary axioms, remembering that in order to give them the necessary mobility one must have a distant view, but also look at what is nearby and all around oneself." (Foucault, 2000, p. 448). In earlier work he had already pointed out that today the point is not so much to discover what we are, but rather to refuse what we are. "We have to imagine and to build up what we could be to get rid of this kind of political "double bind," which is the simultaneous individualisation and totalisation of modern power structures. (p. 785).

More recently, Braidotti added that we need to "detoxify our bad habits, in our way of consuming, of thinking, and of relating with others, instead entering a state of critical displacement that refuses the biased habits of thought that, through their repetition, maintain the exploitative and violent relations of "today."" (Braidotti, 2019a). The zig-zagging between local-global, past-present-future and what is and what might be, "affords a critical relation to one's situatedness, a type of resistive dislocation through philosophical engagement with our contemporary moment. Through inquiry we might provoke the detoxifying distance necessary to map the circumstances of our moment that, in turn, animate the injustices of which we are a part" (Braidotti, 2019b, 161).

Doing so won't be possible without disruption and will inevitably lead to tensions, conflicts, controversy and discomfort, but it is therein where critical consciousness and spaces for fundamental change can arise (Wals, 2021). When this disruptive work can be combined with participation in social movements and transition niches that provide concrete utopias and viable alternatives, more hopeful, energising and regenerative cultures (Wahl, 2016) can unfold.

Resistance pedagogy and transgressive learning in practice

Earlier I wrote that in order to engage students and staff meaningfully in the great sustainability challenges of our time, our schools and universities need to be: *relevant* in terms of connecting with the life-world, the community and the issues that matter, *responsive* in terms of being capable of dealing with continuous change, emergence and surprise, *responsible* in terms of being aware of the values that individuals, schools, structures, etc. amplify, ignore or silence, *re-imaginative* in terms of engaging learners in imagining and creating viable and energising alternative futures, *relational* in terms of establishing deeper connections with people, non-humans, matter/materials and places, and, finally, *reflexive* in that a healthy community is a learning community which also implies that sustainability is a continuous search rather than a destination (Wals, 2019). This chapter adds another 'r': for resistance.

There is a whole range of hopeful and generative practices emerging around the world; from student-led transformations in higher education, to citizen-led transformation of urban green spaces, to sustainability-minded activist scientists engaging in transformation of energy, water and food systems, to school communities trying to green their schools and curricula in meaningful ways, to circular economists beginning to challenge some of the fundamentals that underlie capitalism. Many of these practices are transgressive in that they go against forces and normalised routines and systems that push a future pre-determined and pre-scribed by others that, from a sustainability point of view, is highly problematic. By inviting diversity and dissonance, and utilising multiple ways of knowing and being in the world, sustainability-oriented ecologies of learning can play an important role in co-creating the knowledge and wisdom needed to live more lightly, meaningfully, equitably and healthily on the Earth, while being mindful of the intrinsic values of all that is around us.

One example of resistance pedagogy in action might be T-Labs (www.transgressivelearning.org). While T-labs exist in many forms and articulations, they have a number of key elements in common in that they typically:

- depart from existential concerns and questions regarding the socio-ecological wellbeing of people and the planet, that are rooted in specific people and places but always nested in a bigger world;

- involve and invite multiple perspectives and vantage points that can help all affected by these concerns and questions develop a deeper, more integrative and systemic understanding of what is at stake;

- recognise, utilise and combine multiple ways of knowing (scientific, experiential, local and indigenous) and multiple methods of co-creating interventions that might lead to a resolution or improvement of the situation (including cartographic mapping, trans-sectional walks (Box 1) and backcasting);

Box 1: Trans-sectional walks as a way into critical sustainability education

The transformative and transgressive potential of place-based, localised and 'rooted' education is often neglected. Trans-sectional walks provide an excellent entry point for becoming more attentive and conscious of how sustainability or a lack thereof is manifested in the places where we live.

Small groups of students, ideally with different backgrounds, walk towards a pre-identified destination that can be reached within 20 minutes or so. Each group has its own destination to make sure that there is also some variation in the walks. On their way to the destination they are to identify something that to them represents 'unsustainability'. They will likely stumble upon more than one thing or activity but need to agree on one that they wish to share with the wider group. The identifying of what they deem to be unsustainable and the prioritising of what to share with the others, leads to both attentiveness and deeper conversations informed by students' own perceptions and predispositions. Each group takes a picture of what they finally agree to share and sends it by phone to the teacher waiting in the classroom for the images to come in. On the way back to the university, the students do the same thing, but this time they are to look for signs of sustainability.

Back in the classroom, the teacher will have collected all the images provided by all the groups representing the 'unsustainable' and the 'sustainable'. Each group briefly elaborates on their choices and all the others can ask questions. Discussions reveal the ambiguous and wicked nature of sustainability, the boundaries that can or should (not) be drawn, and provide a way into the ethical, habitual and systemic elements of (un)sustainability, especially when questions are asked about how these 'local' issues are nested in larger global issues. Trans-sectional walks are often a starting point for identifying issues that can be explored in more depth during the remainder of the course. What to look for during such walks can vary. One might also ask students, for instance, to look for signs of empathy or a lack thereof.

- pay attention to the development of knowledge and understanding but also to the socio-emotional well-being and agency of those involved;

- are explicitly normative in that they work towards a more just society that allows people to live more equitably without compromising planetary boundaries;

- do not shy away from problematising the conventional and the "normal" by resisting and disrupting systems and structures that willingly or unwillingly work against socio-ecological justice;

- seek to move beyond analysis and critique by looking to change and transform socio-ecological practices and the systems of structures that affect these practices;

- consider the quest for socio-ecological justice to be an iterative and emergent process that requires continuous experimentation, monitoring and evaluation to allow for frequent recalibration of what socio-ecological justice entails and what needs to be done to achieve it.

Although not necessarily rooted in resistance pedagogy, examples of such forms of transgressive learning, thus far usually outside or on the edges of universities, can often be found in loose intentional networks like the Youth Climate Strike movement, Extinction Rebellion or Fridays for Future, but also in intentional communities seeking to go off-the-grid by creating more localised sustainable energy cooperatives, food systems and

green urban renewal. Often these initiatives allow for community-building and socio-emotional engagement in the issues alongside critical investigation of facts and myths, as well as the use of arts-based and imaginative processes that lead to creative and hopeful alternative practices and possibilities. The current transition niches and social movements in which they are often anchored represent a great opportunity for higher education, as they provide living laboratories for counter-hegemonic education. Fortunately there has been a surge of initiatives, practices, tools and methods that recognise both the urgency of our planetary crisis and the fact that forms of resistance and transgression make both pedagogical and existential sense[2]. A key challenge for universities seeking to contribute to a more sustainable world is to connect their education and research to these niches and movements.

Resources

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2. Some principles, tools and examples can be found here: www.transgressivelearning.org;
https://www.sustainableplaceshaping.net/arts-based-toolkit/;
https://www.wur.nl/en/show/71-Visions-on-our-role-in-social-environmental-transformative-change.htm;
https://ecoversities.org/

Learning from Process Ecology to transform Higher Education in the Anthropocene

Anne Snick and Raad Sharar

Abstract

Current crises such as mass species loss, 400 ppm greenhouse gasses in the atmosphere, and the massive disruption of wildlife by human overpopulation are unprecedented in history, making it impossible to learn from the past about how to sustain life in the future. Moreover, these disruptions are brought forth by human behaviour, especially the Western model of development that colonialism has imposed worldwide. Universities played a crucial role in fuelling this development. They emerged in Medieval times, embracing a mechanistic (Newtonian) and separatist (Cartesian) ontology and embedding it in their architecture, separating natural sciences from humanities, ignoring the dynamic interconnection between subsystems, and marginalising holistic types of knowledge. Today's crises are anomalies revealing that this paradigm is maladapted to the autocatalytic, non-linear reality of life on Earth. Higher education focuses on transferring discipline-based knowledge, hindering the emergence of more holistic approaches. However, HEIs can adapt by learning how to advance a life-supporting, responsible paradigm from natural ecosystems. HEIs must become ecosystems for the co-creation of knowledge aligned with life and create open spaces for transdisciplinary learning, including non-academic perspectives and pursuing a vision of a regenerative, decolonised world. This can be done rapidly by complementing existing curricula with learner-driven programmes using a complexity-based, transdisciplinary framework. Teams of students are currently testing this approach, and the results are promising. However, HE policies are needed to allow this transition to scale rapidly.

Introduction: context & justification

Current crises are unprecedented in history, making it impossible to learn from the past how to sustain life in the future. Moreover, these disruptions are brought forth by human behaviour, especially by the Western model of development that colonialism has imposed worldwide.

Universities have played a crucial role in this development. Academic institutions were shaped in the 17th century, embracing a mechanistic (Newtonian) and separatist (Cartesian) ontology and embedding it in their architecture, thereby ignoring the dynamic interdependencies between more-than-human and human subsystems. Consequently, Higher Education (HE) focuses on transmitting discipline-based knowledge and rational approaches while marginalising more holistic and whole-person ways of learning.

Today's crises are anomalies revealing that this paradigm is misaligned with reality and undermines the prospects of future generations. **The concepts of knowledge (research) and learning (education) have to be radically recalibrated for HE to become a sustainable practice.** This article proposes that HE can shift towards a life-enhancing paradigm by learning from thriving natural ecosystems.

The text first explains the ontological context of the Anthropocene and elucidates why **the mechanistic and separatist epistemology that prevailed during the Holocene no longer suffices to make sense of today's complex reality, inform responsible decisions and educate future generations.**

The article then presents a model of process ecology clarifying what makes systems sustainable; this is proven to depend on a system's capacity to maintain a balance between resilience and ascendency. This framework helps to understand why HE is so slow to adapt to societal evolutions, and to analyse how to increase its sustainability. For future citizens to learn how to navigate complexity and design responsible alternative futures, HEIs must transform into open learning ecosystems, fostering the co-creation of diverse kinds of knowledge aligned with the processes of life.

The text thirdly proposes a practical strategy for fostering the emergence of this kind of learning. By complementing existing curricula with learner-driven