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Towards a 'Life-turn' in Education:
A Thought Experiment

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Abstract

This article explores the need for transformative change in higher education institutions (HEIs) to help address the complexity and existential risk resulting from multiple interconnected crises. First, it acknowledges that the rate and direction of change in HEIs have been inadequate and that, despite well-rehearsed obstacles and enablers, much more needs to be done to ensure HEIs can deliver human security. It then explores the rising calls for a renegotiation of the human-nature relationship (HNR) and renewed awareness and respect for all forms of life on Earth, emphasising that bold thinking and a departure from the dominant culture that disregards life are urgently needed. Such calls could be central to a repurposing of learning and education that views human security as intrinsically linked to the security of all life and life-supporting systems. Finally, it builds on notions of systems change theory linked to Donella Meadows' leverage and uses the device of a 'thought experiment' to identify three questions for the present and future of HEIs, in line with Meadows' three highest leverage points.

1. Introduction

> *The diversity of cultural expressions is an extraordinary opportunity to understand how biodiversity is perceived across the globe, learn from each other and to imagine solutions… to understand and change the way we relate to nature. Making peace with nature is a matter of behavioral change, ethics and values… For this, we believe in the power of social and human sciences and education.*
>
> – **Audrey Azoulay**, Director-General, United Nations Educational, Scientific and Cultural Organization (cited in: IPBES 2022)

As abstract concepts such as the Anthropocene, Capitalocene, and Chthulucene become almost mainstream (Haraway 2016), our material reality has kept pace with layers of 'synchronous failures' (Homer-Dixon *et al.* 2015), and the litany of multiple crises, from rising inequality to loss of biodiversity and climate disruptions, is becoming all too familiar. The combined crises have led the United Nations Development Programme to frame the notion of a new uncertainty complex, calling for the need to address human development by looking beyond improving people's wealth or health and acknowledging the need to protect the planet and provide people with the tools they need to feel more secure (UNDP 2021).

Indeed, the Synthesis Report of the Sixth Assessment of the Intergovernmental Panel on Climate Change could not be more explicit in its warnings about the implications of the changing climate for human security (IPCC 2023). In summary, the socio-ecological impacts of the dominant growth model (Moore 2017; Oxfam 2023) are making the Anthropocene an era of existential risk where the fate of the planet and of its life-support systems is inextricably linked to that of all humanity (Brand *et al.* 2021; Myers 2022).

> *"Sustainability is often treated as a specialised field or limited to certain programmes rather than being integrated into the core curriculum. This compartmentalization hinders the holistic understanding of sustainability and its interconnectedness with various disciplines."*

Against this shifting background, higher education institutions (HEIs) play a role that comes with both great responsibility and potential: ideas shape cultures, feed our imaginaries, and ultimately shape our future(s) (Vervoort *et al.* 2015). The choices of what and whose knowledge is taught and what research is encouraged and funded have a direct impact on the kinds of futures that become possible (Bina *et al.* 2017; Luksha *et al.* 2017). Most men and women occupying roles of responsibility and power will have studied for a degree in HEI, and this highlights the potentially far reaching impact and thus high responsibility of HEIs across the world. In 2019, this author completed a major inquiry into the future of universities and, with Tim O'Riordan, edited a special issue on the subject (O'Riordan *et al.* 2020).* One of the main findings of the review of HEI future discourses was that for universities to shift from being part of the problem (i.e., contributing to the multiple crises above) to becoming part of the solution, they had to embark on deep transformative change, starting with their overall purpose and ethos (Bina and Pereira 2020).

Yet, despite the evident speed of change and deteriorating conditions for human thriving, the rate—and often the direction—of change in HEIs leaves much to be desired. The well-rehearsed obstacles to deep changes in the overall purpose and ethos and in related pedagogy and content persist to this day (see Box 1) (Fazey *et al.* 2020; Huckle and Wals 2015), perhaps confirming the observation that HEIs are not, themselves, good at learning (Connell 2019). Globally, the United Nations '*Decade on Education for Sustainable Development'* fell short of its aims (UNESCO 2014). This, despite findings of the *World in 2030 Survey* (UNESCO 2021) showing that two of the major threats to ecological sustainability, climate change and loss of biodiversity, were by far the most-selected challenges (chosen by 67% of respondents) and that respondents were concerned with the following threats to human security: increasing natural disasters and extreme weather, biodiversity loss, the risk of

* Such an inquiry was part of INTREPID, a European Union (EU) network of scientists and practitioners from 32 countries, which was chaired by this author. The overall aim of INTREPID was to advance the understanding and effective application of interdisciplinarity, which is considered an essential way of producing knowledge for sustainability and sustainability science (see Fokdal *et al.,* 2021).

conflict or violence, and the impacts on oceans. In this context, respondents emphasised the need for education on sustainability and for building trust in science, as well as investment in green solutions and promoting international cooperation (UNESCO 2021). This suggests much more needs to be done, but what?

Box 1: Asking Chat GPT Why is Higher Education failing to deliver more Sustainable Development?

Higher education is often criticised for failing to deliver more sustainable development due to several reasons:

1. **Lack of Integration:** Many higher education institutions struggle to integrate sustainability across disciplines and departments. Sustainability is often treated as a specialised field or limited to certain programmes rather than being integrated into the core curriculum. This compartmentalization hinders the holistic understanding of sustainability and its interconnectedness with various disciplines.
2. **Siloed Approach**: Higher education institutions are often organised into separate faculties and departments that operate independently. This siloed approach can inhibit collaboration and the interdisciplinary efforts necessary to address complex sustainability challenges. Limited communication and cooperation between departments can result in fragmented approaches to sustainability rather than comprehensive, systemic solutions.
3. **Outdated Curriculum**: The curriculum in higher education institutions can be slow to adapt to the changing needs of society. Sustainability issues, such as climate change, social inequality, and environmental degradation, require interdisciplinary knowledge and skills that may not be adequately incorporated into traditional academic programmes. The focus on traditional disciplines and specialisation may overlook the broader understanding of sustainability and its practical application.
4. **Insufficient Focus on Practical Application**: Higher education often prioritises theoretical knowledge over practical skills and real-world application. While theoretical understanding is crucial, translating that knowledge into action and developing practical solutions is equally important. There is a need for more experiential learning opportunities, internships, and community engagement initiatives that allow students to apply sustainability principles in real-world settings.
5. **Limited Faculty Expertise**: Many faculty members may lack the necessary expertise in sustainability and sustainable development. Limited faculty training and professional development in sustainability-related topics can hinder their ability to effectively incorporate sustainability principles into their teaching and research. Building faculty capacity and promoting interdisciplinary collaborations are vital to addressing this gap.
6. **Market-driven Priorities**: Higher education institutions are often influenced by market-driven priorities, focusing on employability and economic competitiveness.

Sustainability, although gaining recognition, may not always align with immediate market demands. This can result in limited resources and attention devoted to sustainability education and research.

7. **Limited Institutional Commitment:** The commitment of higher education institutions to sustainability varies widely. While some institutions have made sustainability a core value and embedded it in their strategic plans, others may view it as an add-on or optional component. Lack of institutional commitment, leadership, and dedicated resources can hinder efforts to prioritise sustainability in higher education.

To overcome these challenges, higher education institutions need to embrace systemic change. This includes integrating sustainability across the curriculum, fostering interdisciplinary collaboration, prioritising practical application and experiential learning, providing faculty training and support, and demonstrating a strong institutional commitment to sustainability. By addressing these issues, higher education can better prepare students to contribute to sustainable development and meet the challenges of a rapidly changing world.

Source: https://chat.openai.com (accessed 29 May 2023)

2. A Relationship that 'Matters to the Earth'

There is a vast scholarship on the importance of education for human development as well as on what can and ought to be done. The remainder of this contribution explores the question 'what more can be done' by taking inspiration from a trend, a change occurring as we write, that appears to hold special promise: a rising call for taking a new look at human-nature relationships (HNRs) as the root cause of our multiple crises (IPBES 2019) and key to greater security for all life on Earth. In fact, our crises are intimately connected to 'our (non) relationship with nature' (Bina 2013: 1041); the United Nations report '*Making Peace with Nature*' (UNEP 2021) is a measure of how mainstream this HNR theme is becoming and how it is being linked to the need to change, transition, and transform culture and systems towards a more sustainable future, including education systems, which still largely draw on the insights and blind spots of the Western scientific revolution and its dichotomous view of 'man and nature' (Pereira and Bina 2020).

Today's human (and more-than-human) condition can be framed by the combined realisation of: 1) the Anthropocene, whereby humans and technology are now a force capable of planetary-scale disruption (Steffen *et al.* 2007), driven by the Capitalocene's dominant socio-economic model (Moore 2017); and 2) the Gaia Hypothesis (Lovelock and Margulis 1974), which has challenged dominant western cosmology, shifting our attention from infinite universes to the realisation that Earth is a unique home capable of supporting life: life transforms its environment, and Earth is what it is because life transformed it into a habitable home (Latour 2021; Wahl 2018). (N.B., the term 'life' is used in this chapter as a synthesis term for all human and other-than-human life and its supporting systems.) These two understandings of today's conundrum are intimately connected, crucially, because the

first points to what is happening (the Anthropocene) and why (the Capitalocene), while the second (the Gaia Hypothesis) provides a rich story about why it matters that we should care for all of life on Earth: no one can be secure until we are all secure.

As people and nations across the world, from the South to the North, East and West, try to adapt to living with existential risk, there is a growing call for renewed awareness and respect for all forms of life on Earth, beyond the western dichotomy of human-nature divides. This rising tide responds to a need to find new ways of making meaning in times of existential risk: it carries with it voices from the 'semi-peripheries' (viz., globalised capitalist economies, e.g., the *Buen Vivir* movement) and from disillusioned 'cores' (e.g., beyond growth, degrowth movements), building bridges across disciplines, across cultures, traditions, languages, and worlds (Boaventura de Sousa 2016). In between these persistent divides of worldviews, struggles, and aspirations, there is the emerging possibility that learning about global citizenship becomes a path to a more just, sustainable, and thus secure future.

> 'The history of humanity…courses adopt the radical strategy of setting human and planetary history… [to offer] a more expansive and interdisciplinary perspective on today's world [that] can galvanize the Great [see: https://greattransition.org/] by reorienting the thinking, attitudes, and motivations of billions of people… As the astronauts learned, seeing Earth from space can shock us into a new appreciation of the home we all share... Teaching the history of humanity can be equally transformative by helping us see ourselves as citizens of humanity.... a sense of global citizenship can help motivate and mobilize most people on Earth behind the challenges of the Great Transition' (Christian 2023).

It is in the liminal space between the unravelling of the global capitalist project and the shifting attention to Gaia and to our place with/in/as her that we can find a lever to 'change everything' (to echo Klein 2015). As Beling and others argue, 'a "new Great Transformation" of contemporary societies and their development patterns on a Polanyian scale in the coming decades is likely inevitable, be it "by design or by disaster" (Reißig, 2011)' (Reißig cited in: Beling *et al.* 2018: 305).

The suggestion of this contribution therefore builds around the need for a shift towards a new story about humanity's relationship with the wider community of life and its dependence on the planet's life support system (Kimmerer 2013; Wahl 2016), its intrinsic aliveness (Weber 2013), its intelligence and evolutionary ingenuity, and the life-giving role of its plant kingdom (Lovelock and Margulis 1974; Mancuso 2021):

> 'So far, we've lived by the grace of green plants, and we owe both our lives and our lifestyles to them. Consider that everything we consume… is the product of plants turning sunlight into chemical energy. Our cars, our computers, our Christmas tree lights all feed on photosynthesis as well, because the fossil fuels they use are merely the compressed remains of 600 million years' worth of plants and animals that grew their bodies with sunlight… other than rocks and

> metals, it's hard to find any raw material we use that was not once alive, owing its ultimate existence to plants.' (Benyus 1997 60-61)

And yet, such is the depth of the 'non-relationship' with the nature of our mainstream socio-economic model (Bina 2013)—itself cultivated and reproduced by the education model—that it suffers from 'plant blindness' (Mancuso 2021). In the next section, I build on notions of systems change theory linked to Donella Meadows' insight on the three highest leverage points to intervene in a system: the goal of the system', 'the mindset or paradigm after which the system arises which concerns thinking and knowledge (the way we represent and know the world) and 'the power to transcend paradigms which concerns the ability to acknowledge that every paradigm is a 'limited understanding of the world' (Meadows, 1999: 17) thus demanding radical pluralism in our ways of knowing. I combine her work with Abson and colleagues' (2017) reading of leverage points, emphasising the need to re-connect with nature as a high leverage strategy, in order to argue for a 'life-turn' in learning.

"A renewed focus on life, or 'life-turn' in learning and education, would require a new lens on all subjects and disciplines, acknowledging and embracing interconnectedness and interdependence as a default interpretative lens."

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3. What if HEIs Embraced a 'Life-turn'?

'One thing is very clear: never has bold thinking about what matters in the world been more urgent'

– Bill Adams (2020)

> *What happens when human exceptionalism and bounded individualism, those old saws of Western philosophy and political economics, become unthinkable in the best sciences, whether natural or social? Seriously unthinkable: not available to think with.*
>
> (Haraway 2016)

Many scholars and activists, including those cited above, have already argued that a dominant culture based on (and reinforced by) learning and education and socio-economic systems that disregard life can only drive humanity away from security and towards collapse, along a path littered with interconnected crises. This status of alienation from life itself was beautifully expressed by Robin Wall Kimmerer's account of her experience with language. She discovered that her indigenous roots and Potawatomi language had a word to describe 'the force which causes mushrooms to push up from the earth overnight', and it is the word 'Puhpo-wee', and she explained:

> 'As a biologist, I was stunned that such a word existed. In all its technical vocabulary, Western science has no such term, no words to hold this mystery. You'd think that biologists, of all people, would have words for life. But in scientific language our terminology is used to define the boundaries of our knowing. What lies beyond our grasp remains unnamed' (Kimmerer 2013: 49).

The 2023 E4HS conference acknowledged that education for human security must include the whole biosphere since our security depends not just on that of individuals and nations but on that of all life on the planet. The suggestion here is that we take a step further, even beyond the imperative of reconnecting humans and nature, as Abson and colleagues (2017) recommend in their exploration of leverage for transformative change. Using the device of a 'thought experiment[*] combined with the futures studies tradition of asking 'what if', I ask three questions of the present and future of HEIs, in line with Meadow's three highest leverage points:

1. **What if** our learning and education systems were repurposed so that their main purpose, in line with the most progressive interpretations of the United Nations' '*Transforming our World: 2030 Agenda for Sustainable Development*' (UNGA 2015), was to secure a socially just and ecologically sustainable world, from local to global (i.e., Leverage point 3: Goals)?
2. **What if** this repurposing was inspired by a mindset and paradigm that foreground the notion that our beautiful world works thanks to its aliveness, ensuring that learning is first-and-foremost about an understanding and a celebration of all Life, letting go of the reductionist lens of human exceptionalism (i.e., Leverage point 2: Paradigms, Mindsets)? and
3. **What if** the overriding ethos of such learning institutions was radical humility through the embracing of plural ways of knowing, where the best of epistemologies from the global south meet with the best of western science to help us frame new meanings, new narratives, new words; a space where, in Meadow's own words, we learn to keep ourselves 'unattached in the arena of paradigms, to stay flexible, to realise that NO paradigm is "true," that every one, including the one that sweetly shapes your own worldview, is a tremendously limited understanding of an immense and amazing universe' (i.e Leverage point 1: The power to transcend paradigms)?

Human security, for all, demands global social justice, which in turn is not possible without global cognitive justice, ending centuries of western domination that has profoundly marginalised other knowledge and wisdom traditions (Boaventura de Sousa 2016), with increasingly evident consequences for all life (IPBES 2019) and life-supporting systems (Steffen *et al.* 2015; Homer-Dixon *et al.* 2022). A renewed focus on life, or 'life-

* A test in which one imagines the practical outcome of a hypothetical situation in which a hypothesis or a principle is explored to help one think through its consequences (Webster's New World College Dictionary, 4th Edition, 'https://www.collinsdictionary.com/dictionary/english/thought-experiment' (accessed: 2/3/23)), (see also Brown and Fehige 2022)

turn' in learning and education, would require a new lens on all subjects and disciplines, acknowledging and embracing interconnectedness and interdependence as a default interpretative lens. Even before the global pandemic of 2020, there were calls for changes to the systems of governance and organisation of human knowledge deemed inadequate to address the threats to planetary health (Whitmee *et al.* 2015); our seemingly endless cycle of crises makes a compelling case as to why such a life-turn' might be a desirable, indeed non-negotiable, change in HEI learning and education.

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