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Lost in the Economic Agenda: Reclaiming Education for Sustainable Development

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Authors
Lucía Morales*[1]; Ozéias Rodrigues Da Rocha[1]; Anna Zherdeva[1]; Lia Pop[2], Ivaylo Peev[3]; Jon-Hans Coetzer[4]; Intesar Madi[1]; Abrar Alzankawi[1]; Daniel Kamphambale[1]

Abstract
To achieve a sustainable future, countries are challenged with the importance of developing educational systems and models that aim to support and enable individuals to take actions that promote sustainable growth, development, and progress. The sustainability of the economic system and the concept of inclusive economic growth and development are identified as relevant areas of discussion as there is a need to move towards practical insights that provide active and realistic policies that enable the transformation of learning, teaching and research practices. Educational models that seek to integrate research activities as part of the learning process become crucial in developing competencies and skills that help us navigate the complexities of the global economic and political systems. There is a need to explore the role played by educators through the consideration of alternative learning and teaching practices that require alternative pedagogies that provide practical insights into education and its connection to society, the economy and the environment and where research is identified as one element of teaching and learning practices and processes.
Keywords: Education, Sustainable Development, Economics, Society, Teaching and Learning

1 Introduction

Education for Sustainable Development (ESD) is a significant element of the United Nation's 2030 Agenda (UN, 2015), the Sustainability Goals, and its targets. The importance of sustainability and the challenges faced by the world economies require innovative thinking and efforts to collaborate and support knowledge exchange and practices. Finding alternatives to support economic development cannot be limited to countries with the capabilities and wealth to support required investment that aligns with current technological infrastructure, access to natural resources and facilitation of educational systems attuned to the labour market needs without neglecting the social

[1] Technological University Dublin & European University of Technology
[2] Technical University Cluj-Napoca & European University of Technology
[3] Technical University Sofia & European University of Technology
[4] United Nations Institute for Training and Research
*Corresponding Author

and environmental dimension. Government policymakers need to reconsider the role played by the educational system and how it can be reconnected to the needs of society while fostering learning and working environments that take into consideration the fast pace of technological progress and the growing disparities between nations. While education has been subject to a significant transformation, the pace of change does not match learners' needs. The educational sector has drifted towards the marketisation of its services. Educational models are defined by exhibiting dynamics that are more in alignment with market-driven economic and business models that lead to questioning the role and purpose of education, the role of teachers and researchers and how their capacity to connect with the growing diversity of students and their different expectations and demands that are aspects that we explore in this working paper.

2 The Economic Transformation of the Educational System

The educational landscape is being transformed, and in alignment with Attewell (2021), there are significant levels of confusion when trying to identify to which extent HEIs have transitioned to supporting an educational framework where education is used as a trading commodity in the labour market, and that brings us to reflect on the role and purpose of education. Some initial elements to reflect upon relate to how Higher Education Institutions (HEIs) are commercialising their educational offer and are engaging in fierce competition to attract students while neglecting the importance of nurturing learning environments that are supported by solid foundations that cherish knowledge exchange and knowledge transfer as we are now immersed in the process of frantic competition driven by individualistic agendas that are neglecting the value of cooperation, participation, and knowledge co-creation. The educational system is failing to equip current and future generations with the knowledge, skills, and capabilities to understand the United Nations 2030 Sustainability Agenda and their associated Sustainable Development Goals so that they can actively participate as informed citizens in transforming our relationship with our planet and its boundaries. Our understanding of our role as global citizens is very limited. A disruptive approach towards educational models that integrate diversity and inclusivity are lost within a learning context that cannot support equity and the inclusion of all learners despite their socio-economic status and differentiations driven by ethnicity, race, and gender biases. Despite the vital role of student engagement in supporting sustainability and its goals, it is unfortunate that at present there is a significant absence of research focused on the student's role in promoting sustainability, especially at the postgraduate level. At the European University of Technology (EUt+), the educational context is being explored by researchers as we seek to identify the role of the students that we argue should be considered from a different context. Students transition towards the learning process, and their different levels of professional development and attainment need to be acknowledged. The "student" role does not seem to acknowledge the diversity of contemporary learning environments. Morales et al. (2022) emphasise that students should be encouraged to apply their knowledge and share their ideas as we take a more inclusive approach towards articulating and implementing the Sustainable Development Goals (SDGs) as we consider how "students or learners" are integrated as part of HEIs learning and research environments where differentiations and distinctions are made that prevent

collaboration and participation between students across different programmes and academic progression. Learners need to be supported by sustainable learning, teaching and research practices that combined with assessments that are more realistic and connected to the global socio-economic and environmental systems demand a different approach towards learning. We argue on the need of developing a more holistic approach towards education without neglecting the importance of the "traditional" disciplinary specific driven and dominant educational paradigm.

3 The Reality of the Sustainability Discourse

There is a significant gap in developing state-of-the-art knowledge in sustainable development, education, and training. To address this gap, we aim to shed light on transformative education and provide a vision to support the future of higher education through the students' voice and why it matters. The working paper offers insights and reflections from doctoral students at Technological University Dublin that are integrated that offer a critical perspective on their experiences as they navigate doctoral education and the Sustainability Agenda. Through this analysis we seek to offer critical reflections on the importance and need to develop and design a new educational model (ANEM) that fosters and nurtures sustainability values, but that closely connect to the reality of students and how the learning process has evolved. The discussions are guided by the principles outlined in the novel concept of Circular Pedagogy + Inclusive Education 1.0 to 5.0 introduced by Morales et al., (2022). These connections between the theoretical and reflective practices will help to develop new ways of knowledge sharing and decision-making concerning implementing sustainability goals in the higher education system. At the same time, the neglected role of pedagogy and how it should be considered when interacting in a learning environment defined by growing levels of diversity and problems associated with students' lack of interaction, class absenteeism, detachment from their learning environments, isolation, mental health, discrimination, marginalisation, racism to name just a few of the critical dynamics that define the supercomplexity of Higher Education Institution working and learning environments as explained by Barnett (2000) is critical. Existing educational models defined by commercialisation, commodification and a business modus operandi have inflicted serious damage on how education is understood, more than justifying reflective and critical research studies to help better understand how the educational landscape is evolving.

4 Understanding Sustainability and its Importance

The Sustainable Development Goals (SDGs) outlined by the United Nations in 2015 and represented in the UN 2030 Agenda (UN, 2015) acknowledge Quality Education - SDG4 as a means for achieving the remaining SDGs (Steffen et al., 2015). Therefore, understanding sustainability and its essential role has become necessary as it affects all aspects of government policy, corporate strategy, consumer decision-making, and education (Sánchez Carracedo et al., 2019; Ziolo et al., 2019; Settembre-Blundo et al., 2021). Education for Sustainable development (ESD) has become one of the most important concepts of HEIs in achieving the SDGs (Franco et al., 2019; Elmassah et al., 2022). Today, humanity faces many challenges involving highly complex interactions between human action and the environment (Hel, 2018; Voulvoulis &

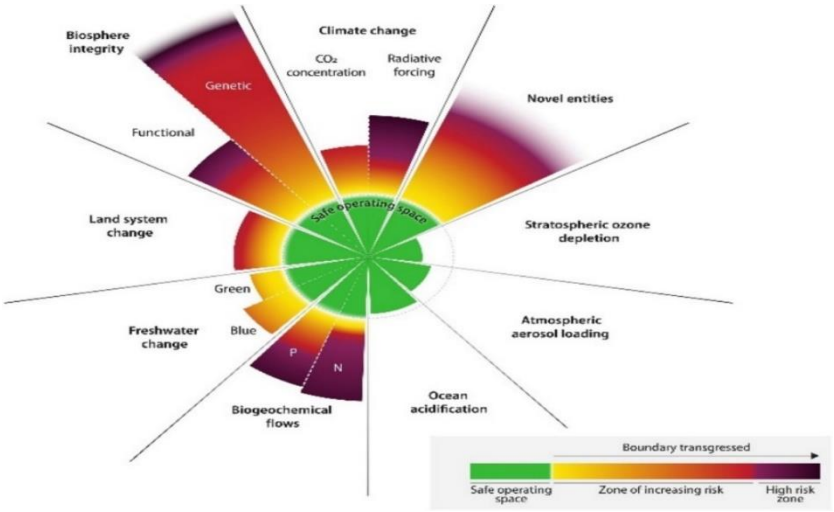
Burgman, 2019). Although such complexity, in most cases amplified by its non-linear nature, still obscures our understanding of such issues with nuances of constants and profound uncertainties, it is a fact that our current level of perception and advancement of our learning about the matter already allow us to argue that human behaviour, mostly unintentionally malicious, has been the driver of sustainability challenges as defined by the Anthropocene and human economic and business activities and their impact on our environment and its degradation (Pauw et al., 2015; Karlsson, 2021; Reynolds, 2021). This is because, through individual and collective choices, we have exacerbated social, economic and environmental problems and their roots, transgressing critical planetary boundaries (Lim et al., 2018; Brand et al., 2021; Sultana, 2023).

Findings from recent scientific evidence (Richardson et al., 2023), offer significant evidence that six of nine planetary boundaries have already been crossed, namely, climate change, biosphere integrity, land-system change, novel entities, freshwater use and altered biogeochemical cycles (notably phosphorus and nitrogen). Based on the same work, previously mentioned, the nine planetary boundaries are:

1. Climate change
2. Biosphere integrity (functional and genetic)
3. Land-system change
4. Freshwater use
5. Biogeochemical flows (nitrogen and phosphorus)
6. Ocean acidification
7. Atmospheric aerosol pollution
8. Stratospheric ozone depletion
9. Release of novel chemicals

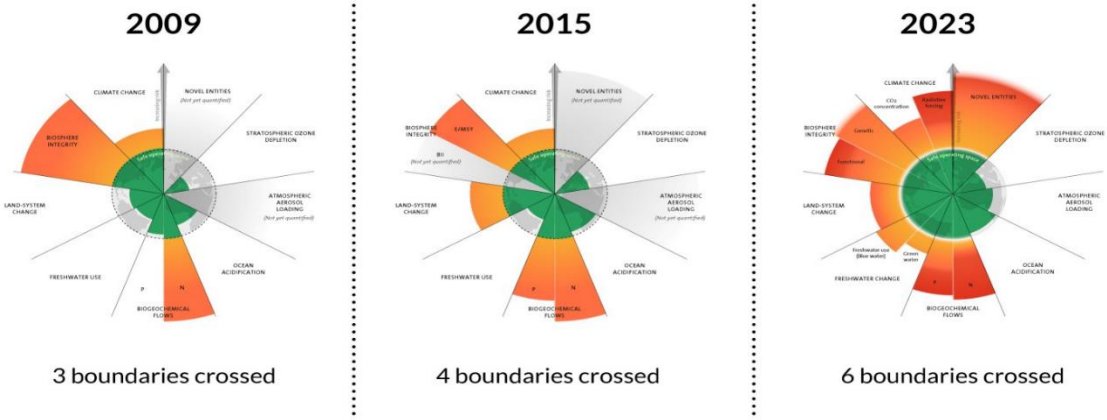
Figure 1 below illustrates the present status of control variables for all nine planetary boundaries, wherein the green zone denotes the safe operating space (below the boundary). The yellow to red spectrum signifies the zone of escalating risk. Figure 2, in turn, indicates the rate at which the transgression of planetary boundaries has occurred, commencing the analysis from 2009 to the current year 2023. Given that the planet's ecological integrity is the basis of life and of all economic activity in our society, reaching such critical limits and tipping points entails uncertainty in the interactions of the ecological system, which is absolutely necessary for the maintenance of existence on Earth (Steffen et al., 2018; Kuenkel, 2019; Kemp et al., 2022). Continuing to reach and surpass these limits will lead us to an extreme in which we will have an inhospitable state for life, given that a planet under such conditions will not be able to offer us the minimum to satisfy our basic needs such as food, water, health and energy at first (Rees, 2020; Tollefson & others, 2020; Ripple et al., 2022; Ripple et al., 2023). In the background, the spiral of consequences continues to breach from elementary to advanced levels in the constitution of the social systems with restrictions on employment, housing, income, increased cost of living and other means of subsistence for citizens (CEPAL, 2020; Gramkow, 2020).

Figure 1: Planet boundaries transgressed.



Source: Richardson et al. (2023)

Figure 2: Planet boundaries over time



Credit: Azote for Stockholm Resilience Centre, Stockholm University. Based on Richardson et al. 2023, Steffen et al. 2015, and Rockström et al. 2009

5 Reclaiming Education for Sustainable Development

Having discussed, albeit briefly, the rationale why the path to sustainability is so important for our society, it is not difficult to admit its emergency character because here we are simply dealing with the primary concept of the perpetuation of life on our planet (Upreti, 2023; Zhang & Fu, 2023). Changing a chaotic picture of global dimensions requires efforts proportional to the dimension of the challenge, demanding from all of us a profound shift in direction in our perceptions, values, attitudes and behaviours (Javanmardi et al., 2023; Zu, 2023). Not restricted to subjective aspects,

change is necessary in our practices, business process, production methods, usage of natural resources and economic motives that require a change on our economic thinking (Ivanova et al., 2020; Mattauch et al., 2022). Hence, reframing our worldview is important to create the ideal conditions for the needed changes to take place. In fact, fundamental changes in the way we think, act and relate to the world we live in are essential for us to achieve a degree of behavioural change that will enable the conditions of sustainability that we urgently need (Steele & Rickards, 2021; Stern & Valero, 2021). At this point, we recognise that, arguably, education is the most important tool for reshaping worldviews and values. Our educators have a critical role to play, as their learning, teaching and research methods and how to integrate them as part of students and learners' academic routines becomes essential if we seek to engage on a process of meaningful educational change that helps in the needed economic transformation. Education has played a critical role since the dawn of civilisation and our capacity to progress, develop, grow, innovate, collaborate are identified as critical aspects that have contributed to the evolution of our species (Meyer & Norman, 2020; Silova et al., 2020; Russo-Netzer, 2023).

Extending the argument, we can also infer that education has enormous potential to face the sustainability challenges faced by humanity (Burbules et al., 2020; Chankseliani & McCowan, 2021; Gare, 2023). Thanks to its broad and universal character, education has the unique ability to penetrate several domains and be the main or auxiliary tool for the transformation of processes and social actors (Adu & Olowu, 2022; Smolentseva, 2023). We can imagine its action, guiding governments in the elaboration of sustainability guidelines and policies, which in turn will be implemented by corporations in their practices and new techniques adhering to the demands of a new reality, passing through teaching institutions, seeking to formulate equally aligned school curricula with such demands until it led to the training of students, forming professionals equipped with the knowledge required by the *"new market"*(Bagdasarian et al., 2020; Tomlinson & Jackson, 2021; UNESCO, 2015). In addition, we can add the subjective educational character embedded in this process, which can also be achieved via the educational process, the formation of critical and aware citizens, who adopt sustainability as a lifestyle choice (Bento Ambrosio Avelar et al., 2019; Liebhaber et al., 2023). We thus perceive the holistic bias of education, noting that in the case of lifestyle choices, we have the influence of other factors that are external to institutions and, therefore, achieving an ideal society, based on sustainable economic development, is not possible without harmony between the binomials personal/collective responsibility (Javid et al., 2021; Lynch & Mannion, 2021; Cocozza, 2023). Further aspects to be considered relate to the conflicting nature between business activities, society demands, and established standards of living by the world's most developed economies, as well as the implications as we consider the need to transition towards more sustainable economic models aligned with the sustainability rhetoric (van Niekerk, 2020; Aslaksen et al., 2021; Ren et al., 2023; Bashir et al., 2024; Wang & Li, 2024).

6 Conclusion

The importance of education for sustainable development (ESD) and how it can be embedded at a higher level of the education system, requires the integration of learners and students as active contributor on the development of sustainability

practices across third-level education. Developing skills and competencies that contribute to our social understanding of the urgency to work and build strong foundations that enable us to advance toward a sustainable future for all can be supported, promoted, and articulated through the educational system (Findler et al., 2019). However, at present, we are facing a significant detachment between what teachers and researchers are doing and what needs to be done as they engage and support their students' learning process. Students and learners are facing significant barriers as they try to connect to the curriculum requirements and identify the appropriate dynamics to interact with their teachers and supervisors as academic hierarchies and systems anchored in the past prevent the development of educational models that align with developmental needs that are not limited to economic goals and motives as we are now lost in a discourse that has aligned education with countries' economic and political agendas. In this regard, the 2030 agenda of the UN Sustainable Development Goals (SDGs) becomes the most elaborated, and ambitious, artifact we have so far to build the bridge between the current moment, and its immediate catastrophe framework, and the possibility of a future of inclusive equity, justice and prosperity delimited by environmental boundaries. The UN 2030 agenda and its goals embedded in the SDGs contain universally accepted sustainability objectives and summarise areas of priority action to help society developing a plan of action that address the challenges posed by the global economic, political and environmental system deterioration (UN, 2015; Filho et al., 2023; Sugiawan et al., 2023).

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