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Sustainability and Humanity: In search for harmonized disruptions

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1 - TODAY'S SUSTAINABILITY FOR TOMORROW'S HUMANITY

Sustainability is like a never-ending story. Sometimes misunderstood, sometimes contested, and sometimes ignored. The truth is that sustainability is a highly complex concept that has played an important role in the efforts to deal with global environmental problems (Clausen, Hansen & Tind, 2010) and that continues to be discussed today. One of the reasons that can lead to this notion of complexity ingrained in the concept itself, may be the need for articulation between different areas of knowledge. This meaning that people from different schools, languages and ways of thinking and acting, must work together to collaborative build meaning to the concept.

Starting from the idea that the survival of humankind is of value, Losch (2019) proposes the discussion of the concept on a planetary scale, considering the diverse views and issues of environmental ethics as well as the growing awareness that we are living in a possibly unique scenario.

Vogt & Weber (2019) attempt to stimulate a debate about rehabilitating the sustainability concept proposing seven indispensable dimensions to understand the term (Figure 1). For the authors, "It is as citizens that we address our common affairs, and it is as citizens that we can address the social and ecological implications of our collective culture and individual lifestyles" (Vogt & Weber, 2019, p.3). Moreover, this vision is assumed as an anthropogenic one, the authors are in line with the most recent trend of bringing the discussion about sustainability to the field of eco-relationships (Imram, 2014; Ramos et al., 2020). Indeed, democracy requires "a paradigmatic shift from thinking of people as objects for research into recognizing them as subjects" (Vogt & Weber, 2019, p.4).

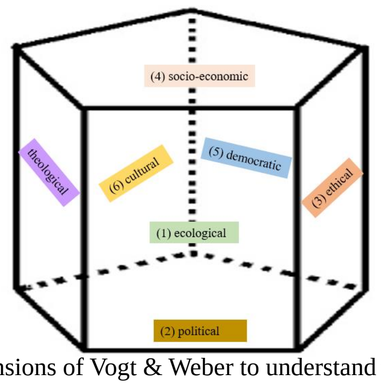

Figure 1:The seven dimensions of Vogt & Weber to understand the term *Sustainability*

2- EDUCATION AS A PROCESS

The idea from Vogt & Weber (2019) that "Sustainable development must be understood as a process of actively and innovatively searching, learning and shaping the present and future of human activities on Earth" bring to teachers and students the need to embrace the culture of social transformation.

Galli & Losch (2019) discuss the need to widen space for humanity and there is already an 18th Sustainable Development Goal proposed. This discussion should lead us to reflect even more on the urgent need to expand interdisciplinary work but also create greater emphasis on the values that should guide humanity as individual emotional aspects. Van der Hel (2016) bring us the idea for the necessity to use new models of knowledge production better equipped to address urgent challenges of global sustainability and that require co-production of knowledge with extra scientific actors in academic knowledge production, bringing to the co-production concept the rationales of scientific accountability, social impact and humility. So, to institutionalize the principle of co-production, the inclusion of all actors have a decisive role in the future of society, with their different perspectives and visions, that must not be forgotten (van der Hel, 2016) and students are necessarily, part of this community.

If we look to interdisciplinary and emotional exchanges as challenges for the traditional research (or for the traditional educational system) we understand how important it is to create a space for processes (and not only for results); processes are dialogic and therefore they necessarily are diverse, plural, collaborative and inclusive. In this line, the model of adaptative governance referred by Turnheim et al. (2015) can satisfy the demands that complex processes require and can be considered itself as a knowledge production system that empowers its participants (Figure 2).

Figure 2:Education as a complex process (Aguado et al., 2018)

3 - PRACTICES FOR A TRANSFORMATIVE EDUCATION

It is widely known that scientific systems are undergoing transformation (Hessels & van Lente, 2008) and several studies have pointed to a variety of changes being one of the biggest and more challenging, the one that proposes the transition from a model 1 of knowledge production to a model 2 (by Gibbons et al., 1994) with diametrically opposed principles. Although the knowledge production model continues to be a current topic, there is no doubt that, as Boaventura Sousa Santos (2003) argue, science must be seen as a form of knowledge and social practice.

Prigol & Behrens (2020) emphasize on how permanent actions of humanity bring profound changes in the social, economic, and cultural dimensions. These changes, occur both locally and globally and they can either to modify or to destroy. At the same time, changes bring so much complexity and uncertainty that people must be prepared to face the unknown; discovering ways and resources that can be used for the emerging problems imposed by the contemporary world.

This whole scenario leads to the need and urgency of leaving the system of "banking education" (Freire, 1996) in which education becomes an act of depositing, where students are the receivers and the educator the one who deposits. The needs of the contemporary world are those of a dialogic, reflective education, based on values and that promotes the potential that we all have as human beings to learn from each other. As Remi (2022) argue, "Education should make a person think free and should encourage to experiment and to ask questions. Teachers should be as a mentor or facilitator to answer the queries" (Figure 3).

Figure 3: What should Education make? (Remi, 2022)

4 - TOOLS TO MANAGE DISRUPTIONS

The authors consider the 3 main aspects as relevant:

A) Academy context should be the basis to raise the problems under analysis and reflection
B) Participatory approaches such as action-research/action-learning practices - more than a set of methods and techniques; it is an attitude where, through the non-authoritarian or manipulative organization of the creative process, a more robust knowledge is reached and
C) Teachers who combine technical and social knowledge have an important role once they can provide meaningful learning and at the same time contribute to an institutional cultural change.

5 – FINAL REFLECTION

Facing the complex and uncertain times and problems to which humanity is exposed, an education that allows not only to respond to existing problems but also to analyze, problematize and create solutions adapted to each specific case, seems to be the one that best responds to current challenges. So, more than put the effort on implementing technological and social innovations, there is a need to design them too.

The factors Lazzarini et al. (2016) points out, as indispensable for success (competences, connectivity and collaboration) are those nature ecosystems use to be balanced. Seeing the human being in an integral ecology perspective (Pope Francisco, 2015) as part of the ecosystem itself and the set of inter and eco-dependence relationships, we can bring this analogy to the aspects related to humanity in general and to the school in particular. In this sense, diverse views and issues of environmental ethics as well as the growing awareness that we are living in a possibly unique scenario (Losh, 2019) it is an integrative, inclusive and promoting vision of a society where social justice is possible. Academy, as the central axis of response to societal problems, must be aligned with this holistic vision and the role of academics as potential change agents the society (Lazzarini et al., 2016) it is unequivocal.

Academia is challenged today to be creative and reformulate and redesign "business as usual" in formats that responds to the new needs of an emergent society of nowadays, uncertain and complex. So, to builds a culturally sustainable and democratic society, it is important to improve pedagogy, to restore dialogue and to promote people empowerment.

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