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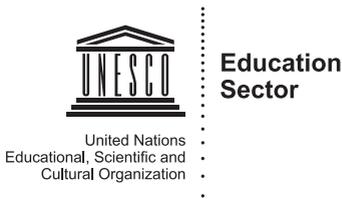
Humanistic futures of learning

Perspectives from UNESCO Chairs
and UNITWIN Networks



UNESCO Education Sector

Education is UNESCO's top priority because it is a basic human right and the foundation on which to build peace and drive sustainable development. UNESCO is the United Nations' specialized agency for education and the Education Sector provides global and regional leadership in education, strengthens national education systems and responds to contemporary global challenges through education with a special focus on gender equality and Africa.



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Creating communities of knowledge and connecting to landscape

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The author proposes that science education incorporate elements of philosophy to help us rethink our relationship with the land on which we live. The author foresees that such an education will result in communities of knowledge that will create an affinity to our landscape and shared values for a more sustainable planet.

Scientific research has produced some of the most useful hypotheses on humans and the universe that support the restructuring of our beliefs and the building of a new paradigm of human development. For instance, twentieth century physics and chemistry as well as more recent brain studies have helped us extrapolate some useful ideas to restructure how we situate ourselves in the world and inform our daily actions. Twentieth century physics has shown us that space and time are not distinct entities, and that bodies are at once matter, waves and energy. The reality that we believe we see and touch is only one perception as the 'solidity' of matter represents only one form of 'reality'. Quantum mechanics informs us that electrons exist only when they interact with something else, or that an electron is a set of quantum 'jumps' as they pass from one interaction to another. Every interaction is an exchange of information and the 'jumps' do not occur in a predictable manner. Thus, in this sense, reality is only an interaction, an exchange of information, and it is probable not deterministic. The study of particles helps us see the world as a continual and restless proliferate of entities that appear and disappear, and that combine together with infinity – a world in continuous evolution (Rovelli, 2014).

Recent biochemical research has shown that receptors and their binders act as 'information' molecules through which cells relay communication within an organism. The study of receptors, that transmit messages to cells, which then sparks a chain reaction of biochemical events reveals how this infinitesimal physiological phenomena that occur at the cellular level can be translated on a global scale to drive an organism's behavioral changes, both in physical activity and in their mood. It follows the idea that the brain can control actions that occur throughout the body and the idea that the chemistry that occurs within an organism forms the biological basis for emotions. Thus, chemistry is related to our individual perception of the world and to our way of being in the world. Our view of the world and our physiology are therefore connected as the external world and the inner world lives in continuous reciprocal reference (Pert, 1997).

Neuroscience hypothesizes that the particular lateralized architecture of the human brain is the result of an evolutionary thrust. Research in neuroscience tells us that the two specialized hemispheres of the brain are connected by the corpus callosum, allowing for communication between both sides, which enables the emergence of new capacities and improvement of our capacity for decision-making.

To face the great global challenges of our time – especially, given the complexity and rapidity of these changes – we can deepen our knowledge of scientific research and let these ideas inform our daily perception of reality. In doing so, we grasp the idea that there is both impermanence and interdependence; information exchange; reality is not deterministic but probabilistic; the external world and the inner world are continuous mirroring each other; and that our brain is plastic and its architecture can evolve.

Incorporating philosophy and science into education

To help us expand our understanding of the many ways we could perceive the world, one strategy could be scientific dissemination through philosophical counseling in schools and university programmes; in professional and work-related programmes; and in non-formal and informal educational settings. In today's world, we need critical tools to help us digest the vast amounts of information available and evaluate what is central and what is peripheral to helping us solve global challenges. We need tools to help us frame phenomena and our choices in a broad view.

In a more recent shift, science has begun to restructure its view and accept the idea that the observer can reside within the observed field, and that two can mutually influence each other. In this age, 'learning to become' entails first overturning the basic assumption of Western knowledge systems that the transference of objective knowledge necessitates the stability and passivity of the observing subject. This shift entails 'metanoia' (i.e. a fundamental transformative change) to replace this basic assumption with a knowledge paradigm that supports the transformation of the subject through the process of knowing the object.

Human beings and our relationship with nature

For a radical reconfiguration of our paradigms, it is necessary to confront the complexity of our time with a holistic perspective and to find creative solutions to achieve sustainable development. Ultimately, the future of knowledge cannot be separated from self-knowledge, from a knowledge that involves the transformation of oneself – the 'metanoia'. (Paoletti and Dotan Ben Soussan, 2019)

In our time, the skills to manage change are largely strategic and entails mental flexibility and emotional balance. To guide change, we need awareness, perception of ourselves and of the whole – in essence, creativity. Fortunately, the orientation we need for the evolution of humanity to live in harmony with the planet that hosts us has been precisely defined by the sustainable development goals of the 2030 Agenda. In this context, 'learning to become' our potential is the new perspective and it will require experimental research through immersive practices and experiences of active listening to foster the growth of

self-awareness and awareness of the whole. The meditative practices required to gain this awareness is contained in the heritage of certain cultures in particular, some of which are not completely foreign to the Western world. In Greek and then Roman antiquity, the essential task of philosophy was not to construct or expose a conceptual system, rather the different philosophical schools transferred systems of practices to work on themselves and bring about their own transformation – practices that involved not only thought but also imagination, sensitivity and will (Hadot, 2002; Mortari, 2019). Today, meditative practices can serve as a tool in formal educational systems to strengthen the necessary skills to root the individual in the journey to navigate emotions, perceptions and understanding of the global challenges as a whole as well as awareness of the choices available for oneself and for the whole.

We know that we have neuroplastic brains that can evolve to face the challenges of our time. To secure the future of education, we need to incorporate knowledge of practices that foster the transformation of one's mind, some of which already exist within recognized educational forms. The landscape as an experience of nature can be used to shift education in this direction. The landscape refers to the relationship of humans with nature, to our point of view on nature and our feelings towards it. In this sense, the experience of the landscape is also an experience of oneself. In the industrialized world and in city life, nature's experience is mostly marginal. In this environment, an immersive experience in the landscape and in direct contact with natural forces can play an educational role, not only to develop an ecological conscience, but also as a practice of sensory perception and listening to oneself in relation to the whole of which we are a part.

Experiencing the landscape and having sensory contact with nature are needed to practice 'embodied' knowledge. Art can be an effective educational tool for this purpose (see for example, the "Teatro Natura – O Thiasos" by Sista Bramini). Neuroscientific research teaches us that both our auditory and visual systems have an innate preference for natural sounds and landscapes. In addition, aesthetic pleasure probably plays a role in helping us process information about the world as an evolutionary advantage (Gazzaniga, 2008).

Creating communities of knowledge

Michael Jakob (2009) maintains that our age is decidedly the 'landscape's age,' or rather the "omni-landscape" due to the predominance afforded visual perception typical of this so-called "image civilization". With globalization, every place can be reached and displayed for our appraisal. In the capitalist world, the landscape becomes an object of consumption while the experience of the landscape becomes less and less direct and authentic.

Since the landscape is also an expression of the relationship between places and communities, Joan Nogué (2010) associates the landscape with the soul of a country. He stipulates that the traumatic loss of the sense of place can cause serious malaise in individuals and in society. Nature and culture are connected in the landscape, and ethics is associated with aesthetic, which is precisely connected to a specific landscape and its ability

to manifest and generate the kind of relationship that the community maintains with nature. Hence, the relationship between places and communities is an expression of cultural identity.

The industrial era and then globalization have modified the practices of making sense of the landscape by settled communities, affecting the way in which collective memories and territorial identities are produced. With globalization, the relationships of communities and individuals with places are more complex than in the past, so new forms of dynamic and multiple, fluid and crossbred identities are being defined. In today's world, there coexists conditions and characters generated by the paradigm of modernity, with others coming from the new ecological paradigm. Along with the outcomes of the de-territorialization process that has undermined the traditional relationship between communities and places as well as the effects produced by the process of homologation of many local contexts, there are signs of new forms of social aggregation. New ways of belonging have arisen to connect individuals to more places and contexts simultaneously at different scales; from the local to the global; and in the use and production of the territory.

There are new forms of relationships in which identity processes are built and in which new practices of dialogue emerge to produce a sense of place. This opens up a new perspective with new opportunities to rethink our relationship with places. That shift ultimately supports the ability to keep the relationship between communities and landscape alive, constantly renewing cultural identity. Identity production becomes a dynamic and continuous project in which we can re-elaborate the memories (i.e. subjective and stratified) of places to draw on different forms of knowledge – from specialized to widespread. The real asset to be exchanged is knowledge.

The current transformations relating to the processes of identifying identities can be oriented – according to our sustainable development mandate – towards the construction of social ties based on the exchange of knowledge; and listening and appreciating individuals and groups. These transformations can be supported and facilitated by more open, direct and participatory democratic practices. To achieve this goal, it is useful to expand on the theme of better management of knowledge within groups and communities as a strategic skill to develop a knowledge society that is realized through the contribution by all (Authier and Lévy, 1992). The ethics of collective intelligence puts individuals at the same level to facilitate its full expression. It is based on a model of cooperative learning where the exchange of knowledge becomes a new form of social bond as every human being and member of the community is considered a source of knowledge for the others. In this sense, knowledge is not only the primary wealth of the contemporary world, but also one of the places of solidarity among humans.

A 'community of knowledge' is one in which the responsibility of being a 'knowledge keeper' is returned to everyone. This paradigm shifts the focus from the perspective of 'stakeholder' and changes our way of contributing to knowledge, with the ultimate goal being to achieve sustainable development. For the future of education, it is necessary to support the cognitive practices of the groups and communities that continuously recreate the values of their landscapes through the practices of cultural appreciation and symbolic recognition of places. From this perspective, an educational system can adopt the strategy of 'generative narration'

of landscapes to facilitate individual and collective processes of finding their own paths to enhance, symbolize and attach memories to places, where co-constructions of meaning are realized.

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