Transformative STEAM Education: Enacting the Moral Imperative of Education for Sustainable Development

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Room 205, Runme Shaw Building, HKU
Chair: Dr Daniel Churchill

Abstract:
200 years after the European industrial revolution the Earth’s natural systems are now under severe duress due to our modern technological footprint. We have not only developed the means for vastly improving the material quality of our lives, but also the means for our collective destruction. This new geological era - The Anthropocene - manifests in numerous ways, two of the most visible being catastrophic climate change and dire plastic pollution of the world’s marine ecosystems. These are hugely deleterious side effects of a fossil fuel based market economy premised on uncritical production, consumption and waste disposal.

Education for sustainable development needs to be guided by a philosophy of education based on a broader notion of the public good that envisions young people as active citizens of democratic societies that value equally the competing interests of globalizing economies, diverse cultures, and the natural environment. Educating young people with transdisciplinary capabilities for reconciling these global conflicts involves immersing them in transformative learning experiences in which they learn to reflect critically on their valued beliefs and habits of mind, engage empathically in real-world ethical decision-making scenarios, contemplate their spiritual connection with the natural world, and develop their moral agency for making the world a healthier and happier place in which to thrive.

In this presentation I will explain how a transformative philosophy of education can help to save our planetary ecosystems (and our own species). By integrating the Arts with STEM we create powerful and inspiring spaces for teachers to co-design transformative learning experiences that enable their students to develop not only STEM disciplinary knowledge and skills but also transdisciplinary capabilities for ensuring sustainable development. In particular, I will outline a successful transformative STEAM strategy – ethical dilemma story pedagogy – that has been embraced by teachers and researchers in Australian, Indonesian and Thai schools and universities.

About the speaker:
Peter Charles Taylor (PhD, MEd, BSc, DipEd) is Chair of the International Transformative Educational Research Network (ITERN), with chapters throughout Asia, Africa and the Indo-Pacific region, and Adjunct Professor of Transformative Education at Murdoch University, Australia. Peter’s vision of education for sustainable development integrates the Arts and Sciences to foster students’ transdisciplinary capabilities: critical self-reflection, ethical astuteness, political awareness, connectedness. These are essential capabilities for living and working sustainably in the increasingly complex, contestable, and crisis-ridden world of the 21st century. Email: p.taylor@murdoch.edu.au

References


