Com. # 9

On the Meaning of Sustainable Development : Humanity and Culture in the Age of Gaia and the Singularity

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Abstract

In the context of today's sustainable development challenges, the peculiar proposition of 'teaching' the future to engineering students is important for multiple reasons. While those in the humanities may feel content with aligning sustainability with a "return" to nature or an embrace of non-technical solutions, engineers find themselves committed to achieving sustainability through *development*. This means they are committed to using technological innovations to bring about a "future" in the strong sense of the word: a form of collective life that has no analogy with the present or the past. This is perhaps a good thing. Surely the right technologies justly applied will yield a brighter collective future than any return to the stone age. But it is also a difficult thing. Tomorrow's engineers cannot go forward with today's engineering's future as usual, that future of infinite progress, growth, and production. This means that we will not only have to teach tomorrow's engineers how to develop new technologies, but that we must also train them to critically interrogate both past futures and the new futures that emerging technologies are making possible. As engineering educators, we must likewise interrogate our own practices, weaning them away from their dependences on engineering's past futures, and opening them to new future-oriented and future-creating practices. This contribution will discuss both the challenge of integrating the idea of a sustainable future into engineering education as well as the pedagogical modalities most appropriate to this task.

Keywords : futures studies, futures past, sustainable development, engineering education, futureLabs

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