10 - Science Curriculum and Educational Policy | Theoretical

SP - (16604) - STEM; OR THE MODERN PROMETHEUS OF SCIENCE EDUCATION

Radu Bogdan Toma (Spain)¹

1 - University of Burgos

Short Abstract

There is a sense of $d\acute{e}j\grave{a}vu$ in the STEM movement that is reminiscent of the story about how didactic approaches grounded on theoretical principles whose soundness is yet to be established are forcefully promoted. Despite the popularity of this acronym, there are many aspects of the STEM discourse that require thorough scrutiny. In this proposal, I reflect on the educational and research practices that are being developed under the STEM umbrella. After contextualizing the STEM acronym in its historical contexts, I note that the STEM movement hide a pronounced neoliberal ideology aimed at fueling nations' competitiveness by growing a workforce in such disciplines. This leads me, consequently, to note serious reservations about many proposals labeled STEM, especially insofar as the didactic transposition of such approaches resembles longstanding science education efforts whose value is equivocal at best. Finally, I draw attention to ethical concerns by analyzing how the "STEM" tag is used in the educational panorama as a slogan devoid of any innovation and research-based support, which raises critical concerns about the tendency to lump educational efforts under a popular heading to attract funding, as well as for the commercial exploitation of books and educational materials now rebranded as STEM and promoted as educational innovations.