JAMES BAILEY
Independent Scholar, United States

James Bailey was perhaps the first student ever to have computing fully integrated into his liberal arts education, having taken a full-year high-school course in computer mathematics in 1962 and then having a full-time computer time-sharing terminal in his undergraduate dormitory in 1965. He subsequently led one of the first commercial efforts to install computers in high schools solely for student use.

In 1985 Bailey joined Thinking Machines Corp. where many of today's emergent computing algorithms were pioneered. His 1996 book After Thought was among the first to place computing in the overall history of ideas and philosophy. The book positions emergent algorithms as the replacement technology for numbers and equations, just as those numbers and equations were once the replacement technology for the circles and lines of geometry. Bailey's current efforts are aimed at providing tools for students to learn Big Data and emergent mathematics on their own. He is a graduate of Brown University and a member of Phi Beta Kappa.

Schooling for life K-12

"Causality" and "reality" were concepts developed by our forebears as they struggled against the top-down repetitious mechanism of the universe, where novelty plays no role. Now that struggle is over and life has won. The Anthropocene is upon us. Life, however, is not just Mechanism 2.0. It is mechanism's challenger and it plays by different rules.

Renaissance philosophers like Descartes and Locke made it their business to influence the curriculum precisely because they saw that habits of thought are critical and that they get set early in life. They pushed a curriculum that rewards the "methodical," one-step-at-a-time habits where causality comes for free, but which are all wrong for understanding life.

The 1950s bequeathed America in particular two seeds for a renewal of its K-12 curriculum: the double helices of DNA and the elliptical orbits of Sputnik. Terrified of Communists infiltrating the State Department, America pinned its national security on countering Sputnik. Today, with communist viruses infiltrating the State Department on a daily basis, that choice looks very bad, but its schools are stuck in a local minimum. They are still forcing students to finish learning what it means to be dead before they start learning what it means to be alive. By which time it is too late.

This talk will trace the philosophical origins of today's STEMinist juggernaut, noting in particular the failed attempts to change it. Then it will outline a replacement K-12 curriculum grounded in networks of neurons rather than lines of force. Since a change of this magnitude is unlikely in our lifetimes, the talk will conclude by describing steps today's students must take to protect their habits of thought and keep them open to the world they will actually live in.