DUE TO POOR U.S. STUDENT PERFORMANCE in the sciences, in 2006 the STEM concept, an interdisciplinary approach to the teaching of Science, Technology, Engineering and Mathematics, was introduced in classrooms [1]. Beginning in 2012, educators in Massachusetts, New Mexico and Rhode Island started experimenting with STEAM, adding Art to the educational model. The chief objectives of the STEAM movement, according to the Rhode Island School of Design, were to “transform research policy to place art and design at the center of STEM” and “influence employers to hire artists and designers to drive innovation.” Educators also said they wished to see art and design take a more central role in education from kindergarten through college [2].

I applaud these initiatives to enhance interdisciplinary learning. However, there is an important component still missing. Society needs to be added to create a complete educational model (STEAMS) in which the history and social implications of science, social science and art are considered as well.

Historically there are very famous examples that illustrate the importance of understanding the social implications of scientific research. For instance, in 1939 Leo Szilard, the first physicist to conceive of a chain reaction that could become an atomic bomb, authored with Albert Einstein a letter to U.S. President Franklin Roosevelt expressing his concern about Germany making an A-bomb first. However, after the Manhattan Project had produced one, in the spring of 1945 Szilard became concerned about the consequences of using the A-bomb before an international control agreement had been discussed with the Soviets. After World War II Szilard founded the Council for a Livable World because he understood the importance of creating dialogue about developments in science, especially as they relate to issues of war and peace.

Today it is important to consider the social implications of a Western worldview that has shifted from the domain of religion and philosophy to the sciences. Changes in cosmological paradigms entertained by physicists in light of rapidly changing knowledge about the macrocosm and microcosm in the universe have resulted in a master narrative about cosmological origins that is in constant flux. However, there is little commentary about this shifting construct of “truth” and its effect on our lives and culture.

In colleges and universities, the fragmented nature of an educational system—in which the implications of economic paradigms or views of history are considered separately from the arts and sciences—has led to a lack of dialogue about these interrelationships. Often absent in the discourse are the human and social implications of the direction of research or of works produced, and there is no conceptual container to facilitate these discussions.

Some educational institutions have added social and/or multidimensional courses to their curricula. For instance, Pitzer College (Claremont, CA) requires all students to spend a semester living and/or working with a local community to better understand the realities and dilemmas confronting the people in that community. Bryn Mawr College (Bryn Mawr, PA) offers three classes in one semester in which the same 15 students look at a subject from various perspectives all semester. In fall 2015 the students in this course studied issues of incarceration in three classes, taught by a political science professor, a social science professor, and an English professor, with an arts component taught by an art professor.

Adding “society” to STEM and STEAM makes the terrain for social, political, economic and/or historic discourse available for an added dimension of dialogue and understanding to take place. Questioning the social implications of what we do can create clarity and help guide our life choices.

SHEILA PINKEL
Leonardo International Co-Editor
Email: <spinkel4@gmail.com>

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