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## Twinkle, twinkle little star arts and humanities take us far

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Logic will get you from A to B. Imagination will take you everywhere,” said Albert Einstein. The arts and humanities have played a critical role in human contemplation of the cosmos for centuries. In part, this paper provides an overview of past and present human efforts to understand - through artistic and philosophical endeavors - what is beyond Earth and where Earth fits into the cosmos. The paper also looks to the future and the role the arts and humanities can play in space exploration efforts. As current and future generations strive to move off Earth and develop habitations in addition to the current space stations, placing the arts and humanities in a central place in space education is essential to the success of such missions. This approach is an example of the S.T.E.A.M. (Science, Technology, Engineering, Arts and Mathematics) paradigm. Regarding the topic of interstellar travel, Dr. Mae Jemison has stated the following: “We can’t do this with just half the population.” Her words highlight the importance of including girls and women in space exploration activities. Incorporating the arts and humanities in space education can provide effective ways to involve more girls and women in this area of study, particularly when combined with an understanding of contemporary research on how to encourage and enable more girls and women to train for, work in, and advance in S.T.E.M. fields, as well as in the arts, humanities, medicine, and other areas.

### Biography

Adrienne Provenzano, BA, BS, JD., is an accomplished S.T.E.A.M. educator with particular research interests in women’s history, astronomy, and space exploration. She is a versatile professional musician - pianist, singer, composer, and conductor. She holds a degree in political science and history (summa cum laude) from Arcadia University, a degree in music (with highest honors) from Indiana University, and a degree in law from the University of Pennsylvania and has completed graduate work in education at Butler University. Ms. Provenzano has presented at the 100 Year Starship Public Symposium, the Space Exploration Educators Conference, and the 2nd SPACE Habitation Conference. She has been published in *Astrosociological Insights* and in the 100 Year Starship 2013 Conference Proceedings.

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