

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
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SPACE EDUCATION, SPACE RESEARCH AND SPACE INDUSTRY: CONNECTING A
FRAGMENTED CHAIN

Abstract

The advances of knowledge gained in the last few decades have led to many technologies to benefit our everyday lives. A good part of such development builds on space exploration advances, which are essential to advancing technology, innovation, science and promoting international collaboration among nations. Nowadays, great attention is to the opportunities that space can offer us to elevate humanity and improve its prospects. Here, it is crucial to understand how people, especially young professionals, prepare to advance space exploration in a context of continuous improvement. Whilst Universities encourage students to pursue STEM careers (Science, Technology, Engineering, and Math), which provide common skills needed to enter the space industry, they fail to give clear directions to pursue a space career given the wide variety of options and the specific requirements. In response to this lack of structure, non-profit organizations such as the Space Generation Advisory Council are crucial to match the young community's interests with those of the industry. Students and young professionals see such an organization as a reference point for improving knowledge and gaining experience in projects embracing space exploration. Also, non-degree space programs, such as that of the International Institute for Astronautical Sciences, aim to support education in space fields to increase the chances of getting a space career. These organizations and programs bring a broad diversity of backgrounds and professionals who have a passion for space, leading research and communicating science to a more general audience. So, how is the role of educational institutions evolving in this context? This paper speculates on the gaps dividing education, research, and industry with the hypothesis that university programs are having challenges keeping up with the space industry's requests and students' expectations. In the long-term, such dissociation may make the university unnecessary for enabling access to specific jobs because it cannot provide the education needed for such a sector. Thus, to save business sectors that are a critical part of our Societies, there is a clear need to raise awareness about the implications of a fragmented link between education and industry, and bridge the gaps. *Please note that the present abstract is submitted under the Space Generation Advisory Council's auspices as part of the research conducted within the Space Exploration Project Group.*