

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
Calling Planet Earth - Space Outreach to the General Public (6)

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IMMERSION IN THE NEW SPACE AGE: HARNESSING INNOVATIVE TECHNOLOGY FOR A  
MORE DIVERSE AND INCLUSIVE OUTREACH TO INSPIRE THE NEXT GENERATION

**Abstract**

Combining the rise of private industries as well as the pervasive use of media and digital entertainment, space exploration is more than ever accessible. Not only does this facilitate information exchange from experts to the general audience, but it also enables a diversification of talent necessary for innovation and progress of space exploration, which subsequently provides technological return benefits for humankind. Space exploration is entering a new phase of development which emphasizes non-technical enterprises and inclusive opportunities. Specifically, youth has been a key target group in outreach efforts as they will be the work-force and decision-makers of tomorrow. More than ever STEM educated young professionals are required to fill in the needs of the space sector. With the potential of using the outreach of space exploration as a tool to inspire the next generation to pursue STEM careers, a wave of well organized outreach is necessary. In this new space wave, the younger generation is able to be involved early with space initiatives, shaping on its way national trajectories and outreach efforts. Whilst the potential of media and entertainment has been investigated in relation to innovation and scientific progress, no studies have specified this regarding the influence it has on space exploration. Moreover, now that technology is expanding to appeal to multiple of our senses such as with virtual and augmented reality, there is increasing possibilities for virtual, immersive and inclusive outreach and educational activities. By understanding the varying consumption of media and entertainment in our digital society and the current landscape of outreach space initiatives for youth, this paper will study the importance of media and entertainment in inspiring, informing and engaging younger generations with space exploration. With a combination of survey data gathering, interviews with experts and case studies within Space Generation Advisory Council (SGAC), the results will be used to frame the role of outreach in the future of space exploration and provide recommendations for space initiatives regarding how to engage with and for youth. The main output of this paper is qualitative forecasting of space exploration outreach as well as some suggestions for activities with current and future technologies. 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.