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

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AUGMENTED REALITY (AR) AS A COMMUNICATION TOOL IN SPACE OUTREACH: A CASE OF STUDY IN A MEXICAN CUBESAT MISSION.

Abstract

The new space ecosystem has allowed new actors to access space: from private companies to universities. Likewise, the development of emerging technologies, such as interactive 3D, has broadened the possibilities of bringing space science closer to massive audiences. This paper offers an example by presenting an analysis of how Augmented Reality (AR) has helped an undergraduate CubeSat project, "Colibrí Mission", communicate technical content in a user-friendly and interactive way to its diverse stakeholders: sponsors, young students, and the general public.

Colibrí Mission's transmedia communication strategy, designed for generating public outreach and fundraising activities, includes the implementation of an AR mobile app, that enables the interaction with the CubeSat structure, and an AR brochure. The Media and Marketing unit of Colibrí Mission has been responsible for evaluating the strategy's effectiveness. Three surveys were performed inquiring on the impact of AR content in the accomplishment of the communication objectives: the first one, regarding the impact of AR in the comprehension of what is a nanosatellite among the public; the second one, focused on evaluating the effectiveness of using AR inside a pitch presentation; and the third one, evaluating the impact of designing AR content and translating complex concepts into visual experiences in Colibrí Mission's students .

The insights provided aim to guide and give a valuable overview of the practical and affordable usage of AR in space outreach, especially in a country with a nascent space industry like Mexico. The topics reviewed in this paper include the relationship between AR and branding-transmedia storytelling of a project; the potential benefits of including AR in public relations and fundraising activities; the learning advantages of communicating small satellite concepts through AR; and the availability of resources for designing AR content.

The implementation of Augmented Reality content makes it easier for Mexican people to believe in a space project, as it offers them a close interactive experience and shows them visual evidence of what is being worked on. This 3D technology represents the opportunity to bring the public closer to space science from the proximity of their devices. In Colibrí Mission, an AR mobile app and an AR brochure have had a positive impact inside and outside the team, as it was developed with tools accessible to undergraduate students and it has allowed us to grow, engage and retain our stakeholder community.