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INTERCULTURALITY WITHIN PROJECT POLARIS

Abstract

Organized by the Costa Rican startup AREX and ran by students, Project Polaris is a non-profit international collaboration that simulates a small international space agency with all its technical and logistical dependencies. In its eighteen months of operation, the project has involved over 300 people from 30 different countries who have worked both virtually and in-person on an innovative rover concept: a buoyant system capable of exploring Saturn's moon, Titan. Due to the project's broad scope, educating members in diverse ways has been pivotal to the project's success. This paper describes the strategies implemented in Project Polaris to provide students with engineering and cultural knowledge as well as to probe their growth in these areas.

Since late 2020, three mechanisms have been used to give technical support to the project. First, the creation of partnerships with companies like Dassault Systemes, Valispace, and a.i Solutions, which has allowed students to use and learn new engineering software in which the Star Rover is being designed. Second, mentoring from professionals like Dr. Jean-Pierre Lebreton from ESA and Dr. Alfredo Valverde from NASA, and third, the participation of panelists from entities like Ad Astra Rocket Company, ThrustMe, the Swedish Space Corporation, SpaceX, and Purdue University.

The project's remarkable level of diversity led to the establishment of a partnership with Itinéraires Interculturels (I), a French company that specializes in cross-cultural training, advisory and management.

Throughout six workshops, students were able to increase their awareness of cultural differences and to learn how to use these in favor of the project. Although the current cohort has 108 members representing 26 nationalities and 27 different institutions, I helped the team to develop its own "Polaris culture" based on values shared by all members. This common basis contributed to the cohesiveness of the project's working environment and allowed students to become more culturally agile. This was further put to test during the summer of 2021 when the project successfully brought thirteen French students to Costa Rica. During four months, they stayed with host families, interned at local aerospace companies, built/tested rover components at partner labs and traveled around the country while volunteering with other members.

To evaluate progress, data from all stakeholders has been collected through a variety of surveys and assessments including a quiz based on Hofstede's cultural dimensions, the Intercultural Development Inventory®, and Polaris Evaluations which periodically gather feedback from various parties.