

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
Interactive Presentations - IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (IPB)

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EFFECTIVE SCIENCE COMMUNICATION STRATEGIES TO PROMOTE SPACE SCIENCE VIA  
SOCIAL MEDIA

**Abstract**

Science communication of space exploration activities plays an essential role in shaping public opinion, which in turn exerts pressure on policy makers to support space research in general. In recent years, science communication through social media has transformed the way the public learns about space science. Space Concordia, an aerospace and space association in Montreal (Canada) launched a science communication initiative that took into consideration how space science is presented on social media by six major space agencies, including the National Aeronautics and Space Administration and the European Space Agency. Research revealed five common themes across several platforms: Mars exploration missions, interdisciplinary research projects, dissemination of research findings, communication of team successes, as well as campaigns to promote diversity and inclusion.

The goals for this initiative were to inform, educate, and raise awareness of Space Concordia's current engineering projects and outreach events at different educational institutions. The social media posts targeted university students - at both undergraduate and graduate levels, and the public. The posts and other publications were created by applying design thinking methodologies to the overall science communication process. This initiative also followed an interactive communication model. The content was disseminated and promoted through Space Concordia's platforms, namely Facebook, Instagram, and LinkedIn. To measure this endeavour's impact, key social media metrics such as applause rates, click-throughs, impressions, share of audience, total number of followers, to name a few, were measured over time.

It was noted that students possessed an intellectual curiosity about space science and had the desire to discuss engineering matters and the intention to participate in space-related projects. The novelty of this initiative lies in the fact that it was designed by students for other students using free graphic design and analytics software, which allowed Space Concordia to collect feedback and to adjust quickly at no cost. A social media growth rate of 168% was noted. It was concluded that best practices for space-related communication through social media should implement scientific vulgarization and the use of new social media features and other free software to deliver consistent, authentic, and engaging content. Space Concordia will continue to work on this project by looking into existing technologies for task automation. This study hopes to provide other small non-profit organizations with guidelines on how to effectively reach the public to promote space exploration activities using free and readily online resources.