

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
NEW WORLDS - INNOVATIVE SPACE EDUCATION AND OUTREACH (4)

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THE USE OF TELEPRESENCE TECHNOLOGIES IN NASA'S EDUCATION PROGRAMS

Abstract

NASA uses different types of communication technologies to present information in ways that target audiences are best able, and most willing, to access it. Providing education content through telepresence technologies keeps NASA current with the technology and tools preferred by a new generation of Americans. It also fosters a high degree of interactivity between NASA's scientific and engineering experts and learners of all ages, regardless of geographic distance. These new and emerging technologies enable cost-effective distribution of both education resources and information about NASA's technological and scientific advances. These same tools provide meaningful interactions between learners and NASA's scientists and engineers. The NASA Education website is a gateway for students, teachers, parents, and the general public to access reader-friendly information about NASA's mission and upcoming student opportunities. Social networks and virtual learning communities facilitate collaboration between students and educators, regardless of distance. These relationships encourage participant recruitment, peer-to-peer and subject matter expert mentoring, and preparation for careers in science, technology, engineering, and mathematics (STEM) careers. Online tools build a new generation of "citizen scientists" that pose scientific questions and seek answers when they collect data from earth-orbiting science instruments or astronomical observatories. A new massively multiplayer on-line game is providing a platform for students to develop necessary skills while competing and collaborating with students from around the world. NASA is even providing education activities and educator professional development in a whole new virtual world. From information disseminated via the web, to remote control of scientific instruments, to learning in virtual worlds, NASA Education is making extensive use of telepresence technologies to enable the public to participate in NASA's missions.