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ASTROBIOLOGY IMMERSIVE VIRTUAL FIELD TRIP CREATION NOW AS EASY AS
POWERPOINT

Abstract

Virtual Field Trips with 360-degree explorable and interlinked panoramas embedded with images, videos, text, and hyperlink data provide an innovative and authentic way of engaging student and public audiences in embodied and situated three-dimensional experiences through the two-dimensional nature of computer screens. However, VFTs take time and funding to make. We have changed that with an intuitive interface with Unity, an industry-standard gaming engine. The interface has the same look and feel as creating a PowerPoint. It effectively reduces the production cost to zero and opens VFT creation to academics and students with no training required.

VFT development is uniquely suited to astrobiology with the required visual data, including 360-degree panoramas already available for sites of astrobiological interest on Earth and for some places on Mars. Artist-made 360-degree panoramas open other worlds to such VFTs within the solar system, and beyond – for example the Trappist-1 planets. Storytelling is the most effective form of communication, and VFTs provide the vehicle to relate the stories of astrobiology and the Search for Extraterrestrial Intelligence.

We present a newly developed immersive editor interface to demonstrate the ease of virtual environment creation. The technology also potentially has research uses in conferences and in orientation prior to visiting the field.