

Reimagining oceanographic biogeochemistry: bringing the ocean to the community through virtual reality

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A current challenge in science education is the recruitment and retention of well-trained students into STEM-based careers. Especially at younger ages, the complex scientific processes may lead to disinterest from difficulties in distilling down information into understandable and relatable terms. As a part of the US GEOTRACES GP17-OCE research expedition to the South Pacific and Southern Oceans, video footage was captured and converted into an interactive 360° and virtual reality experience “Sailing with GEOTRACES”. An isometric view of the US Research Vessel *Roger Revelle* was designed to host a virtual environment in which users immerse themselves in life at sea, in addition to learning about GEOTRACES-related biogeochemical processes in the ocean through game-based learning. “Sailing with GEOTRACES” targets all ages, from school-age kids through adults. Here, we will showcase the “Sailing with GEOTRACES” product, as well as communicate the best-practices strategies implemented to engage and educate the general public with a virtual reality tool.