Bowdoin College Virtual Field Trips and EOS Quantitative Reasoning Program Development

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This project focused on two separate goals, one being the preliminary development of a Virtual Field Trip program, and the other being the development of quantitative reasoning modules for the assistance of students in the Earth and Oceanographic department at Bowdoin College. The Virtual Field Trip project focused on creating a greater ease of education for sedimentology students by implementing the use of Gigapan software. A Gigapan is created by a piece of software that takes a very large number of highly zoomed photographs of an outcrop, and then is stitched into one photograph on the computer. This allows the user to look at both the macro and micro components of a geological outcrop with incredible detail. The project aimed at collecting many Gigapans of sedimentary outcrops and creating a program that will allow the user to annotate, draw on, and take tests with these gigapans, creating a much more in depth and interactive approach to sedimentological education. The project took us to the Canyons of Utah to collect Gigapans, and a preliminary pilot of the Virtual Field Trip Program, created by Andrew Currier from the IT department, should be complete by the end of the 2012 school year. The other project from this grant was the creation of quantitative reasoning modules to aid students in EOS classes. The modules consist of a tutorial of an individual mathematical subject and a small quiz to test the student on the subject. The purpose of the modules are to refresh and inform students of mathematical subjects that are being used in their classes so that valuable class time doesn’t need to be spent on the math behind the subjects. Many test modules of different topics were created and tested on EOS students with the possibility of these being implemented in the near future.

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