

Google Street View and Photosphere as Teaching Tools for Understanding Earth's Natural Environment

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Abstract

The availability of ample amounts of new digital imagery for most of world's countries and ecoregions makes it possible to take students on an immersive trip around the world. This is a conceptual and descriptive contribution outlining the process and outcomes of using Google Street View and PhotoSphere in the teaching of a level-three undergraduate environmental science course at a South African university, in a context where increasing class sizes were making it difficult to expose classes to the natural environment even locally. The inclusion of a practical session where students were asked to find places representative of the main vegetation types on various continents resulted in a never-before experienced level of enthusiasm, and improved overall practical series marks. Originality was enforced by comparing point locations on co-mapped kml files. Additionally, imagery of more specific targets such as animals and rare plants was explored in lectures. Besides the key points purposefully illustrated in the lectures and practical session, several important messages emerged, including (a) the overall difficulty of finding places representative of the natural environment; (b) regional differences in the previous; and (c) the diversity of emerging semi-modified ecosystems. Similar use of the same tools in entirely different disciplines should soon help provide students with a well-rounded understanding of the world. With novel technologies arising, this could be one of the early steps towards an integrated form of immersive teaching and learning. A thorough and repeated quantification of the type of results presented here will be important in guiding the precise process to be followed in this direction.

Keywords: geography education; Google PhotoSphere; Google Street View; vegetation science