

Role of Information & Communications Technology (ICT) in building an effective Virtual Field Trips (VFTs) for teaching Geoscience

Sandeep Narayan Kundu#
Department of Geography, National University of Singapore,
Singapore – 117570
Email: geosnk@nus.edu.sg

Abstract

Principles in Geoscience are understood much better in the field than in a classroom. Planning a field trip for a large class size is logistically taxing if it involves air travel, local travel and accommodation; not to mention of the potential risks of being in an unfamiliar territory. More so real field trips may not end up as planned owing to unfavourable weather. In such a scenario, Virtual Field Trips (VFTs) are alternatives to real-world field trips. On top of being inexpensive, Virtual fieldtrips offer an expanded environment to make field sites more accessible for a broader audience. Information and communications technology (ICT) plays a critical role in shaping the way field based learning can be brought into the classroom as a Virtual Field Trips (VFT). From a picture storybook to a map-enable website with advanced contents like panoramas and videos, all forms of content used to build a VFT is ICT enabled. Recent advances have made a plethora of amazing tools some of which are free and assessable through apps in smart devices. This article presents a summary of different ICT tools which help in bringing field based learning to the classroom and a qualitative comparison of their educational effectiveness. The article presents a brief review of VFTs over advances in ICT, an elaborative discussion on various ICT tools and an approach for building a VFT for teaching fundamental geoscience.

Keywords: ICT, VFT, Geoscience
