Now anyone can make a virtual field lesson: the power of FieldscapesVR

Argles, T.W.,¹* Burden, D.,² Tilling, S.³, Minocha, S.⁴ and Wheeler, P.¹

¹ Environment, Earth and Ecosystem Sciences, The Open University, Milton Keynes, MK7 6AA, UK. *correspondence: tom.argles@open.ac.uk

² Daden Ltd, Faraday Wharf, Holt Street, Birmingham, B7 4BB, UK.

³ Field Studies Council, Preston Montford, Montford Bridge, Shrewsbury, Shropshire, SY4 1HW, UK.

⁴ Computing and Communications, The Open University, Milton Keynes, MK7 6AA, UK.

Virtual field trips (VFTs) have been part of geoscience curricula for decades, usually as individual solutions for a specific need (e.g. to support field teaching, for accessibility, or to enable study of remote locations). Recently, several VFTs have been created in 3D environments using gaming engine technology, requiring substantial investments of time and expertise. These 3D worlds, typically tailor-made for a particular teaching exercise or cohort, are valuable resources in themselves. How can we make these resources available to a range of educators beyond their institute of origin?

The Fieldscapes system [1] presents one solution to this problem: a flexible graphical editor interface that allows educators to modify existing teaching materials in-world, or create their own, entirely new lessons - in any accessible 3D landscape within Fieldscapes. The editor is designed to be simple and intuitive, requiring only basic IT skills to master. The Fieldscapes platform already hosts a diverse range of 3D landscapes, many of them adaptable to different exercises and potentially across disciplines and levels, from Primary school upwards. For instance, a school teacher could modify an existing lesson so that they could introduce and demystify the idea of remote rural fieldwork to urban students; or a geology lecturer could create their own lesson in an appropriate 3D environment to teach basic field skills ahead of a field course - saving precious time when actually in the field for more data collection, skills practice or reflective exercises.

We present analysis of feedback from Open University students, schools and higher education practitioners on this new generation of virtual field trips, and briefly explore the affordances of the Fieldscapes system by comparison with a precursor VFT, Virtual Skiddaw [2], developed for The Open University.

References:

[1] Fieldscapes (2017) https://www.fieldscapesvr.com/ [Accessed 29 Mar 2017]

[2] Virtual Skiddaw (2017) http://bit.ly/1QbAbbs