Exploring the affordances of virtual fieldwork in a multi-user, 3-D digital environment

Conference or Workshop Item

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Virtual Skiddaw: Exploring the affordances of virtual fieldwork in a multi-user, 3-D digital environment

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What we built

100 km² area
real data, maps

6 detailed sites
higher res
hand specimens
task lists

Navigation
avatars
guided (linear)
free-roaming
teleports

Chat
range adjustable

Support
manual, transcripts
Gaming VFTs: challenges

Cost: resources, people, time
Real data: detail vs performance
Framework: self-contained vs adaptable
Comparisons: virtual vs physical fieldwork
Overload: not alienating non-gamers...

Gaming engine: affordances

‘3D’ landscape – geology in context; spatial literacy
Rich interface – interactivity and immersion
Self-contained – (mostly): little linked material
Multi-user – especially for distance learners

‘More than fieldwork’ – do something different:
– flying
– aerial views, map overlays
– in-world cross-section
– teleports (time-saving)
– fadeable avatars

What about: F2F students? or schools?
Evaluation & the future...

1. V-skiddaw at the OU  
   eSTeEM project + Steve Tilling

2. V-skiddaw for A-Level students

3. A Virtual Field Trip Service  
   innovate UK project  
   Daden Ltd, DesignThinkers, OU

What about:  
F2F students?  
or schools?

Virtual Field Trip Ecosystem

Authoring Institution  
(also likely to be a user institution, but could be non-educator)

User Institution

Educators  
Customise Lesson Plans  
Learning Analytics  
Experience Virtual Field Trips  
Create User Generated Content

Geospatial Subcontractor

Litigate area from sat/ aerial/site  
Create new locations and core lesson plans

£ Revenue Stream from others’ use

£ Payment, eg per use, per loc, global pass, per annum

Management/Support Costs

Customise Lesson Plans  
Experience Virtual Field Trips  
Core App

Revenue/Cost flows in yellow

£
Questions for you

1. Main attractions of Virtual Skiddaw?
2. How would you use a similar VFT?
3. Should we make more?
4. Would you like to be involved?
Shameless plug…

Project team (1)

Open University
Shailey Minocha – leader, virtual worlds
Tom Argles – geologist
Brian Richardson – production manager
Kat Garrow – project manager
Sarah Hack – graphic designer
Nick Braithwaite – OSL Director
Sarah Davies – academic consultant

Trent & Peak Archaeology
David Strange-Walker – LiDAR, photogram
**Project team (2)**

**Daden Ltd**
David Burden – *project lead*
Paul Rahme – *programmer*
Macdonald Mbaya – *programmer*
Darrell Smith – *project manager*
Tim Lozinski – *graphics/environment*
Iain Brazendale – *programmer*
Lucy Smallwood-Rose – *administrator*
Guy Wallace – *graphic designer*
Chris Stevens – *programmer*

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