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
(under contract if req)
Digitise area from sat/aerial/site
Create new locations and core lesson plans

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

Geospatial Subcontractor

Revenue/Stream from others' use
£

Web/Cloud
Multiple Locations, eg

Skiddaw
Snowdon
Everest
Moon

Core App

£

Multiple Lesson Plans

KS1-3
GCSE/A
U/Grad

VFTaaS Operator (Daden)

New Locations
New Features

£

Management/Support Costs
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*