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

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

Tom Argles, Shailey Minocha
(The Open University)
David Burden
(Daden Ltd)

email: tom.argles@open.ac.uk

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

How to combat fear that VFTs might replace real field teaching?

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?
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

Geospatial Subcontractor

 Digitise area from sat/aerial/site

Under contract (if req)

£ Revenue Stream from others’ use

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

Revenue/Cost flows in yellow

Web/Cloud

Multiple Locations, eg

Skiddaw
Snowdon
Everest
Moon

Multiple Lesson Plans

Core App

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*

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*Site visit, April 2013*