Google expeditions and fieldwork: friends or foes?

Conference or Workshop Item

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Google expeditions and fieldwork: Friends or foes?

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Agenda

- What is virtual reality?
- Google Expeditions
- Our research goals
- Demo
- Individual activity
- Group discussion

What is virtual reality?

A simulated environment on a computer or mobile platform (e.g., smartphone, tablet):

- Second Life
- Virtual Skiddaw: 3D Geology Field Trips (Unity 3D)
What is virtual reality?

A simulated environment on a computer or **mobile platform** (e.g., smartphone, tablet):

- Second Life
- Virtual Skiddaw: 3D Geology Field Trips (Unity 3D)
- Head-mounted Displays
- Viewers
- Mobility

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**Google Expeditions**

- Tablet + Smartphone + Cardboard Viewer + App
Google Expeditions

- Photospheres (360° view)
- Three-dimensional representation
- Real places or simulations
- First person exploration

Our research goals

- Whether and how virtual reality-based Google Expeditions (GEs) can be integrated in the Science curriculum (classrooms)
  - Teaching science concepts and phenomena
  - Support inquiry-based learning and students’ curiosity
- Whether and how virtual reality can support CPD of teachers
- Recommendations for the user interface design of GEs
Our research goals

- Whether and how virtual reality-based GEs can support physical field trips

Pre-physical field trip  ➔  During a Physical field trip  ➔  Post-physical field trip

How you could help us?

- Trying it out today (Demo)
- Thoughts on fit with the curriculum and with physical fieldwork
Think of one of the difficult concepts in Science:

How could Google Expeditions (or Virtual Reality, in general) help you to teach that concept?

Individual activity

How could Google Expeditions support the development of fieldwork skills?

Group discussion
Group discussion

**Pre-physical field trip**

How could you use Google Expeditions before a physical field trip?

Group discussion

**During a physical field trip**

For which scenarios would you use Google Expeditions during a physical field trip?
How could you use Google Expeditions after a physical field trip?

What are the challenges that you would face in integrating Google Expeditions in your curriculum?
**Details:**

Survey:
https://www.surveymonkey.co.uk/r/role-of-virtual-reality-in-fieldwork
or http://bit.ly/2ijMghv

Project website:
http://www.shaileyminocha.info/google-expeditions/

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