Google expeditions and fieldwork: friends or foes?

Conference or Workshop Item

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Version: Version of Record
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

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
Individual activity

Think of one of the difficult concepts in Science:

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

Group discussion

How could Google Expeditions support the development of fieldwork skills?
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?
Group discussion

Post-physical field trip

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

Group discussion

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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