3D virtual geology field trips: opportunities and limitations

How to cite:

Argles, Tom; Richardson, Brian; Davies, Sarah; Minocha, Shailey and Braithwaite, Nick (2013). 3D virtual geology field trips: opportunities and limitations. In: HEA STEM: Annual Learning and Teaching Conference 2013: Where practice and pedagogy meet, 17-18 April 2013, Birmingham.

For guidance on citations see FAQs
## Plan for the workshop

<table>
<thead>
<tr>
<th>Time</th>
<th>Description</th>
<th>Notes/prompts</th>
</tr>
</thead>
</table>
| 11:15 – 11:30 | Introductions by the workshop facilitators (All)  
Introduce the workshop format *(SM)*  
Introducing the WOSL project *(SM)*  
Demo of the App *(SM)*                                      | Discussing the App (background - DVD and the motivation for developing it in a 3D environment) |
| 11:30 – 11:35 | Initial reactions and questions (informal):                                    | This slot will be *informal* but some prompts if people go quiet: How would they use it in their own institution/job? How might this work alongside conventional fieldwork provision? |
| 11:35 – 11:55 | Discussion groups on **Opportunities and limitations** *(suggesting a couple of examples to initiate discussions)*:  
*Sarah to introduce the session*                                      | **Opportunities:** for mobility-impaired students, for reflection after a real trip, for preparations, for learning fieldwork skills such as sketching, etc. ahead of a real trip, etc., being able to visualise aerial fly-throughs for panoramic views, seasonal changes, scale changes from regional geology to close-up and microscopic views of rocks, or cutaways into a mountainside to see the geology beneath  
**Limitations:** what can’t be done/learned/experienced in virtual environments in this discipline? E.g. risk awareness, challenges of weather, challenges of being outdoors, bonding with other students, using equipment in real settings and under different weather conditions |
| 11:55 – 12:10 | Discussion groups on **Challenges of design and integration** *(suggesting a couple of examples to initiate discussions)*:  
*Tom to introduce the session*                                       | **Challenges:** are their any technological constraints? (realism); Costs involved; Multi-skilled development team required; overcoming students'/educators' perceptions of virtual field trips as compared to real field trips; student-training required for interacting with the 3D environment; how to communicate that virtual geology trips are not being proposed to replace real field trips |
| 12:10 to 12:15 | Summarise and next steps (All)                                                 | would people like to carry on this dialogue with us/how? results of the workshop will be sent to the participants. |