



SeriousGeoGames - Geoscience Virtual Reality Experiences for Festival Settings

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Festivals, fairs and showcases provide scientists an opportunity to engage with potentially thousands of members of the public in a short space of time. However, the festival setting provides the same members of the public many exhibits competing for their attention – for family groups, this means a successful exhibit must both attract the attention of the group, and also entertain them long enough for the scientist to communicate their message. Here, we will discuss the use of short Virtual Reality (VR) experiences by the SeriousGeoGames project in engaging the public with research in a festival-like setting.

SeriousGeoGames uses bespoke, immersive VR experiences to both attract and engage the user. They merge scientific models and/or research field data with popular gaming engines, and present them in VR using the Oculus Rift headset. The experiences are designed to last around four minutes and follow a basic script, although a conversational tone is encouraged. SeriousGeoGames applications have been successfully exhibited at several festivals of different sizes and intended audiences, such as the national-level week-long Cheltenham Science Festival, and the local arts and cultural festival, Hull Freedom Festival.

The Flash Flood! application was developed for the Natural Environment Research Council UK (NERC) Flooding from Intense Rainfall (FFIR) programme as a Knowledge Transfer (KT) tool. It was demonstrated at the 5-day NERC Into the blue Science Showcase as one of 38 stands highlighting the UK's cutting edge environmental science research. Over 5000 members of the public attended, and more than 1000 demonstrations of Flash Flood! were made, with 400 booklets handed out. The exhibit received positive feedback from users, and won third prize in a public vote for favourite stand – but this had little visible impact on online metrics of the SeriousGeoGames web presence. In terms of providing a 'positive experience' with science the application was successfully but whether it worked as a KT tool for the project is more difficult to ascertain and will be discussed.

However, after positive comments and feedback from teachers, materials are also being produced to support the use of the applications in Secondary School and Sixth Form teaching (ages 11-18). This has led to two invited articles in magazines aimed at teachers and pupils. Whilst engagement post-event with the online presence of SeriousGeoGames by the general public may not be significant, this unanticipated outcome is a direct consequence of engagement with the VR applications at festivals, fairs and showcases.