

xR StOries

XR Stories Case Study

Creating Augmented Reality stories to bring museum archives to life

R&D funded by XR Stories through an Arts and Humanities Research Council grant has developed new techniques and skills for a digital agency, and opportunities for the National Railway Museum in York, to tell stories and showcase its extensive archive of artefacts directly to people on railway journeys through their smartphones.

Hive IT are an innovative digital agency based in Sheffield. Their goal is to make a positive difference to our world using the right digital tools and technology. Working with the **University of Sheffield** and the **National Railway Museum**, Hive IT sought to explore and develop a digital prototype for an immersive experience that brings hidden stories out from the National Railway Museum to new audiences. The ultimate goals of the work lie in making archive content more engaging and accessible by using immersive technology to share stories whilst audiences travel on the rail network using augmented- and mixed-reality technology.

The project team aimed to, “turn museum archives inside-out”, and unlock the transformational potential of archival content. In order to do this, they overcame technical and process challenges faced by museums in making the best use of immersive storytelling. Using the National Railway Museum’s archive as a foundation they explored repeatable and commercially scalable production processes for large archives.

The team produced an **advanced prototype for the mixed-reality experience**. Combining the technical skills and marketing expertise at Hive IT, storytelling researchers at the University of Sheffield, and archivists at the National Railway Museum, the experience takes the form of a mixed-reality game for phone or tablet that takes the user back to the railways of the mid 20th century.

Key outcomes from the project included the new prototype product for Hive IT, as well as significantly advancing understanding of immersive storytelling in this context. Hive IT have developed new partnerships in the cultural and heritage sector and expanded their knowledge base into 3D modelling and Unity programming. Market research and testing undertaken by the project team has highlighted significant commercial opportunities in bringing experiences to audiences unable to physically visit museums, and supporting heritage destinations to reach their priority audience segments.

Further information:

Hive IT: <https://hiveit.co.uk>

University of Sheffield: <https://www.sheffield.ac.uk/slc/research>

The National Railway Museum: <https://www.railwaymuseum.org.uk/>