

Virtual reality simulation to play part in more accessible railway

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A new “Serious Game” Virtual Reality Simulation is being developed to support disabled people to better access travel on Northern’s services.

The first of its kind, the technology will allow passengers to explore their journey and the support they require in advance, from the comfort of their own home.

Users will be able to experience trains, stations and interact with station and on-board staff in a realistic simulated environment on their own phones, tablets and PCs or even in low cost VR headsets for a fully immersive experience. They can take simulated journeys and experience the railway environment, as well as the support Northern staff will provide along the way.

Developed by lead partner Chrome Angel Solutions and digital technology experts Totem Learning, with support from Angel Trains, Community Rail Lancashire and Northern, the project won funding from the Department for Transport’s Accessibility Transport Research and Innovation Grants (TRIG: Accessibility) programme delivered by Connected Places Catapult to develop and test a demonstration application.

The project has just launched testing of the first demonstrator prototype, with the game being put through its paces by a group of volunteers from Northern Accessibility User Group (NAUG) and Community Rail Lancashire. The user group has been involved throughout the development of the simulation, from identifying accessibility challenges, developing designs and now testing the software.

NAUG is an independent pan-disability railway user group and helps advise on accessibility improvements across Northern's services.

The simulation has been designed to help disabled passengers, and anyone who is anxious about travelling for any reason, to build confidence and familiarity before travelling by playing one of a range of characters with different accessibility needs and journey scenarios.

Mark Powles Commercial and Customer Director, at Northern said: "Our customers are the heart of everything we do, and we are dedicated to making Northern's services accessible to everyone, and to having a positive impact for the north.

"This technology is the first of its kind and has been developed alongside the independent Northern Accessibility User Group (NAUG) and supported by Northern, to empower people to use public transport – no matter their circumstances."

Mark Robinson of Chrome Angel Solutions, who is leading the project added: "It's fantastic to be working with such an enthusiastic group of users, staff and the incredibly creative team at Totem Learning to bring this amazing idea to life. We are very grateful and excited to have the opportunity to demonstrate the huge potential of this technology to support people travelling".

Tony Jennings, NAUG, said: "I am delighted to have been involved with Chrome Angel Solutions, who are developing an exciting and innovative Virtual Reality (VR) simulation game.

"The game provides an immersive VR experience, both at the station and on board the train to reassure disabled passengers when traveling by train, helping build confidence to travel and raising awareness of what passenger assistance is available and what to expect.

"Importantly, the team have engaged and collaborated via workshops with disabled people throughout the development."

Richard Watts, Chair, Community Rail Lancashire said: "For over ten years Community Rail Lancashire has supported people to access train travel but working in partnership with leaders in digital technology has been a first for us. The Serious Game that has been developed will form an integral part of our educational outreach and will, we are sure, help many thousands of people to travel more confidently on our railways."

Helen Routledge, CEO, Totem Learning said: "Games have the power to place people into an engaging and safe environment and VR enables them to immerse deeper into the experience. The combination of these two techniques creates a solution that delivers real impact. We are delighted to be part of this wonderful team."