

VR and AI-enhanced experiences at scale:

A CASE STUDY



JASON STEERS, Digital Officer at University of Liverpool, MATT JONES, Lead Career Consultant at University of Liverpool and LAURA HEATH, Customer Success Manager at Bodyswaps share how virtual reality (VR) with generative artificial intelligence (AI) integrations can enhance digital fluency and confidence at scale.

In 2021, the University of Liverpool partnered with Bodyswaps VR to bring a new suite of immersive experiences to students with a focus on building confidence through employability-focused simulations and public speaking scenarios. We launched the VR Confidence Lab and piloted the use of VR on 100 students.

VR became significantly more mainstream when a new headset was released in 2019 at a price more in line with a budget mobile phone, which subsequently made it easier to experiment with applications of VR as an immersive learning tool.

AN AI-ENHANCED EXPERIENCE

Developing innovative learning experiences using VR provides a unique opportunity to bridge the gap between theory and practice in a safe and non-judgmental virtual environment. Bodyswaps leverages this to empower learners to develop essential soft skills in total autonomy, with AI and tracking technology embedded to invite learners to experience how they come across from another person's perspective, along with receiving personalised feedback on their performance. Using generative AI and AI-powered virtual humans within Bodyswaps' modules, user experience has been taken to the next level with feedback and model answers based upon learner responses.

The benefits of using VR for practice and preparation are clear. One of the initial studies conducted on VR revealed that individuals have an improved capacity to retain information when it is delivered within a virtual environment. Findings from Bodyswaps' research, which encompassed 1,000 students using VR worldwide, demonstrated that even a single session within the Job Interview Simulator instils a heightened sense of readiness and confidence. 80% of students report being more self-aware of ways to improve their skills, 78% feel more confident to apply those skills and 86% would recommend the experience to peers.

Of the University of Liverpool students surveyed between 1 January 2022 to present, 95.7% reported an increased understanding of the skills covered, that they had identified areas to improve on and that they would recommend the training to others. Additionally, we found that student interview performance was enhanced when VR was used ahead of an actual interview. One student said: *"Just knowing how to prepare for and how to address interview questions really boosted my confidence to communicate."*

While VR provides an immersive learning environment simulating realistic scenarios and lets students learn at their own speed and level, Bodyswaps have furthered the accessibility of this training by offering a cross-platform solution extending to PC and mobile devices.

"Technology is at its most powerful in education when used with true pedagogical purpose and there is enormous potential for the application of VR and AI. AI is a crucial component of our framework and thanks to the integration of generative AI in our Job Interview Simulator, we can provide a new level of personalisation. Soon, we will see this evolve to real time questions and responses from the 'virtual humans' when presenting and interviewing."

Laura Heath, Bodyswaps

VR AND AI IN THE CURRICULUM

With generative AI integrations now a part of the experience, the University of Liverpool has evolved VR usage and has incorporated the technology into digital assessment within its Embedded Employability Model to support the confidence of learners. This academic year, for the first time, we have embedded Bodyswaps' 'Public Speaking and Presentation Skills' module into a compulsory, assessed academic skills and methods module for 300 first-year undergraduate Politics students. This element of module assessment is weighted at 10% and is currently awarded on a pass/fail basis.

Public speaking has been identified as a vital skill for the future of work and a key area in which students would benefit from developing their confidence. Facilitating a VR experience using a digital platform enables us to bring something new and experiential to an academic module, which can be delivered at scale. The activity frames how utilising AI is quickly becoming part of daily and working lives, and that it is a valuable tool for students to learn to use effectively in a professional environment.

In an age of digital transformation, the need to equip students with critical, creative, reflective and agile capabilities continues to grow. The public speaking VR/AI-assessed activity meets this need, while helping achieve the new AI Literacy principles set out by the Russell Group.

“

We are experimenting with applications of VR as an immersive learning tool

”



“

Student interview performance is enhanced by VR practice

”

FACILITATED AUTONOMOUS LEARNING

As part of this embedded activity, students are provided with an introduction to the technology, via casting, with a live demonstration of the software and user experience. Students are then invited to familiarise themselves with the platform independently in 2D using personal devices, and subsequently complete the authentic assessment using VR headsets in bookable slots aligning with the module timetable.

Each one-hour time slot allows a group of nine learners to complete the assessment simultaneously over three weeks. Participants access a customised journey of pre-selected chapters through automatic enrolment using their university email address. Independent reflection is built into the experience in the form of a 'body swap' where students become avatars and can review their public speaking performance after watching their recording.

A personalised report with suggestions for improvement is provided as feedback, and completion of a post-experience survey is encouraged to compare learners' thoughts with a pre-experience survey completed during the VR introduction. The activity concluded in mid-November and is already being scoped as a digitally advanced confidence-boosting solution for students studying various disciplines at all levels.

Participant responses have been extremely positive. After completing their assessment, the proportion of respondents that felt very or extremely confident in their ability to navigate and interact within a virtual environment using VR increased from 15% to 75%. Further to this, 90% of respondents identified that VR enhanced their understanding and engagement with the assessed public speaking task. Students commented that they developed confidence in a judgement-free environment, and they benefited from the ability to record and listen back to their speech with personalised reporting on tonality and body language. They found the activity an "interactive and more interesting" alternative to traditional assessments, contributing to their immersive learning experience.



careers@liverpool.ac.uk

laura@bodyswaps.co