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University of the West of England, Bristol, Launches £3.6 Million Interdisciplinary Innovation Hub Project

April 4, 2025

The University of the West of England, Bristol (UWE Bristol) has officially opened The Bridge Studios, a state-of-the-art £3.6 million laboratory designed to foster collaboration between researchers, entrepreneurs, and businesses across the arts, humanities, and technologies.

The 500 sq m facility, located on the university's Frenchay campus, will serve as a dynamic hub for interdisciplinary research, leveraging cutting-edge technologies such as Artificial Intelligence (AI), Virtual Reality (VR), motion capture, immersive audio, and collaborative robotics. The Bridge Studios aims to drive innovation and facilitate impactful industry partnerships.

Key features of the new laboratory include advanced collaborative robotic arms and robotic fabrication technology, enabling research into data-driven art, craft, design, and architecture. A standout element is the robotic fabrication lab, equipped with a multi-directional 3-meter robotic arm capable of large-scale 3D printing for architectural and building design applications.

The Bridge Studios also boasts an immersive studio featuring a substantial 7x4m LED screen, forming the core of its advanced research capabilities in virtual and immersive technologies. Motion capture technology will provide high-precision tracking for human movement, robots, and objects, supporting applications in animation and interactive artworks. Furthermore, the facility offers dedicated space for exhibitions and performances.

One of the studio's inaugural research projects, 'Outside Interactions,' is being led by UWE Bristol's

Professor of Audio and Music Interaction, Tom Mitchell, and research fellow Dr Dominic Potts. Building on Professor Mitchell's prior work in developing gestural music gloves (MiMu gloves), which utilize motion capture and AI to enable music creation through hand movements, the project will now focus on developing high-precision sensors within the gloves to sense a wearer's interactions with physical objects. This research, supported by £2.3 million funding from the UKRI Arts and Humanities Research Council (AHRC), aims to revolutionize musical expression by relocating sensor technology onto the body, offering artists more accessible and uniquely customizable ways to create and perform music.

Tavs Jorgensen, Associate Professor and Academic Lead for The Bridge Studios, commented, "The Bridge Studios provides a unique opportunity to bring together skills from diverse research disciplines and explore how knowledge from within creative disciplines can cross-fertilize with research and innovation within science and technology."

Arts and Humanities Research Council (AHRC) Executive Chair Professor Christopher Smith added, "Investing together in the infrastructure that underpins excellent research and innovation will help us deliver long term sustainable skills and economic growth. AHRC is committed to research and innovation which will deliver on the ambitions outlined in the government's industrial strategy."

The Bridge Studios is strategically positioned to capitalize on the West of England's vibrant creative and cultural environment, bridging the gap between technology and the creative industries and fostering collaboration between academic research and real-world applications