



Talking through time: How AI can be a medium for conversing with histories changemakers

Mary Seacole has come to be widely recognised as a pioneer of healthcare in what we would today call a nurse practitioner. A British-Jamaican nurse that saved countless lives during the Crimean War, Mary passed in 1881 but through the power of AI and digital tools paired with historical accounts and modern performing arts, a new generation of changemakers can engage in conversation with a virtual avatar of Mary.

Utilising digital technologies such as Epic Games MetaHumans, or bespoke photogrammetry (mesh to MetaHuman), AI, image detection and mesh generation, a life-like virtual character can be created, which opens up opportunities for a number of sectors and industries, including heritage organisations for engaging with emerging technologies and performers. Having a virtual character provides more flexibility for public interaction and can further support visitor engagement.

The latest technology can enhance and replicate historic material that is particularly useful when there are limited records and imagery of individuals from the past. By combining the use of a virtual avatar and facial tracking technology, a performance can be integrated with the virtual world through a recorded session or demonstrated through real-time live tracking for a more dynamic result and a truly interactive experience.

The Virtual Engineering Centre has initiated a pilot project, placing famous nurse, businesswoman and role model, Mary Seacole as the central subject. Born in 1806, Mary was a Jamaican immigrant who moved to England aged twelve and practised European and traditional Caribbean methods of medicine.

Following the tragic death of her husband and mother, Mary travelled all over the world and became famous for treating patients suffering from Cholera and Yellow fever. Mary went on to treat fallen soldiers of the Crimean War, a military conflict fought from October 1853 to February 1856.

Bea Freeman, an Independent Film Producer introduced the VEC to local Musical Director, Jennifer John to offer a realistic voice-over to accompany the virtual avatar which would give Mary a truly authentic voice as well as further draw in audiences to her story and experiences.

The next steps for this pilot project involves the integration of further AI to enable verbal cues and realistic conversations between real humans and responsive virtual avatars.

The Virtual Engineering Centre are also keen to explore how conversational avatars can be applied within psychology and healthcare sectors, for a medical perspective. Conversational avatars can bring the benefits of face-to-face communication but also hold a breadth of internal and easily accessible knowledge which can support questioning and offer help for those who need it. This emerging technology could also enable psychologists to assess body language of individuals in a less intrusive manner, which may determine different outcomes and findings.