HTC DEEPQ builds largest VR anatomy lab with Taipei Medical University

HTC's healthcare division, DeepQ, recently announced the completion of the world's largest virtual reality anatomy lab in collaboration with Taipei Medical University.

Equipped with 10 sets of VIVE Pro headsets, which won the Best VR Headset of the Year from VR Awards last month, this cutting-edge VR anatomy lab not only supports aspiring medical students learn/train by themselves, but also allows for multiple users to join a virtual space and experience a human anatomy demonstration by a lecturer.

This remarkable innovation is transforming a course that previously could only be taught physically in person, enabling students to employ the latest VR technology to better prepare themselves in mastering the multi-dimensional intricacies of the human body.

The study of anatomy has always been regarded as the foundation of medicine, and proficiency in anatomical structure identification is associated with better surgical outcomes. Throughout the history of anatomy, education was delivered through 2D objects such as textbooks and models, and more recently using tablet devices and digital anatomy tables. 2D courseware was deeply challenged by its inability to present accurate dimensional perceptions, requiring students to imagine how veins,

nerves and organs worked in conjunction within the human body, a missing link that was long regarded as an obstacle for aspiring medical professionals-in-training.

Moreover, the limited availability of cadavers and their one-time use means that some medical students may not have the opportunity to learn from a real human body, which has been a long-standing pain point in medical education.

With the advent of VR technology, new tools for learning have been developed that can create unique curriculum spaces for students to immerse themselves into. With the ability to support up to 300 people in the same virtual space, these tools allow users to dismantle the human body into over 4,000 detailed structural components for close observation. In addition to static human models for studying, this technology also supports dynamic anatomic models that accurately represent how muscles contract and the movements of valves in a beating heart, thus offering great leaps of visual effectiveness through intuitive learning methods.

Using the recently completed VR anatomy lab at Taipei Medical University, lecturers can demonstrate different angles of the human body structure with the VIVE Pro headset, after which the students can follow up by trying out the VR curriculum on their own.

With every headsets next to each anatomy table, students may actively participate before, during, and after the anatomy courses, gaining deeper understanding of the human anatomy in form and structure relative to the position of organs. Combined with actual operations upon cadavers, the virtual-to-actual learning method may truly benefit students in overcoming obstacles encountered through traditional methods, potentially significantly reducing the number of cadavers required over a student's medical training.

The Taipei Medical University faculty team will also be developing more VR curriculum for students during all stages of the anatomy courses. From pre-studies before class and in-course practice to after-class reviews, the faculty expects to employ the VR curriculum in reversing the rigid methodologies of traditional medical studies.

The university is looking towards more applications as the program transitions to anatomy courses in the School of Continuing Studies, Advanced Medical EMBA

courses, and even into Summer Camp curriculum for elementary, middle-school and high-school students, meanwhile transforming the study of anatomy into something more accessible and efficient.

Source: HTC Corporation
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