University unveils computerised body

Mary Ann Benitez

Medical training using corpses might soon be unnecessary for medical students, after the world's highest-resolution, computerised version of a human body was unveiled at Chinese University yesterday.

The digitised "Virtual Human", a three-dimensional reconstruction of seven cadavers – five Chinese and two American – was completed by a team of engineers and medical professors from the university.

It is the first time that a Chinese body has been completely reproduced on a computer. The breakthrough is also "the world's highest-resolution virtual human", using 1,143 gigabytes of computer space, showing extremely fine anatomical details, the scientists said.

Jack Cheng Chun-yiu, Chinese University's pro-vice-chancellor, said: "The reconstruction of these digital human data sets of Chinese origin provides excellent resources for medical education and life science research."

The US National Library of Medicine released a 15-gigabyte "Visible Human" male in 1994 and later a 39 gigabyte female version. The visible humans have since been used as substitutes for medical school cadavers to train surgeons and to rehearse surgical procedures.

To create Virtual Human, the cadavers were dissected into thin layers and the scientists took digital colour photos of the dissected sections. The data on the five Chinese cadavers was originally collected by the Third Military Medical University and the First Military Medical University on the mainland, Professor Cheng said.

The data on each layer was then combined using advanced imaging technology, to reconstruct a virtual human body. The Chinese University team completed the processing over the last year.

Heng Pheng-ann, of the university's department of computer science and engineering, said: "These achievements certainly strengthen Hong Kong's research and development in computer-assisted medicine."

> ## "[Virtual Human] is an excellent resource for medical education"
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> **Jack Cheng Chun-yiu**
> Chinese University

Jack Cheng, left, and Heng Pheng-ann of Chinese University announce the completion of Virtual Human. Photo: David Wong