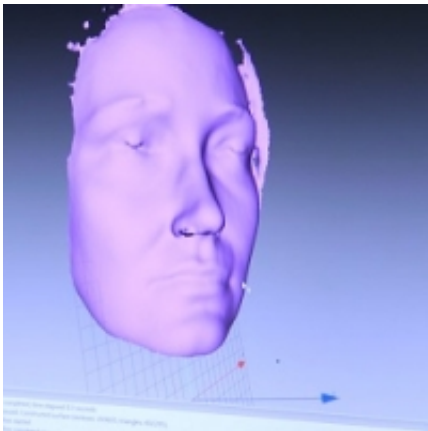


Research aims to show how plastic surgery will really look

September 14 2016, by David Stacey



Researchers at The University of Western Australia have produced a new 3-D imaging system that will provide patients considering facial cosmetic procedures with an accurate prediction of the results.

The system will replace misleading and unreliable before and after 2D photographs that are currently being used by most health practitioners performing cosmetic work.

Winthrop Professor Mohammed Bennamoun, from UWA's School of Computer Science and Software Engineering, said the team had developed a fully automatic system to produce a 3-D analysis of the outcomes of facial rejuvenation procedures.

Professor Bennamoun said there was a rising demand for subtle and 'natural' enhancement of personal appearance through cosmetic medical procedures, which was due to many factors including the increasing longevity of the population, more people returning to the workforce and more frequent relationship turnovers.

"Proving these subtle outcomes with confidence can be challenging and currently relies on the use of subjective evaluation of multi-variable 2D photos with predictions of results often deceiving and unreliable for patients," Dr Bennamoun said.

"What we're working on is a 3-D system that compares two overlaid images to produce a single and precise evaluation of the actual effects of a cosmetic procedure.

"The system indicates where the changes have occurred and by how much, in association with a probability-based predictive modelling system to help the patient understand the potential changes before treatment."

The research is a national collaboration led by 3-D computer vision expert Professor Bennamoun and includes UWA 3-D computer vision researcher Dr Syed Afaq Ali Shah and Dr Michael Molton, a UWA graduate and cosmetic medical practitioner, based in Adelaide.

Dr Molton and his team in Adelaide are running a trial of the first working prototype which demonstrates changes in pre and post-treatment 3-D facial scans.

Last week the researchers received the "Start Something Award for Research Impact through Enterprise" Award at the UWA Research Excellence and Innovation Awards and Honours Awards as part of UWA Research Week.

Provided by University of Western Australia

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