Personalized 3-D avatars for real life

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An avatar is really no more than a graphical representation, generally human, which is associated with a user for identification purposes. Avatars can be either photographs or art drawings, and certain technologies enable their use in three dimensions.

Until now, 3D avatars were mainly used as fun objects for diversion and entertainment purposes of the end user. However, the Media Unit at Tecnalia has developed a "Personalised 3D avatars" technology, the aim of which is to facilitate the building of low-cost 3D avatars.

This 3D avatar is used as a responsible interface to give advice to users, motivating them and guiding them while interacting with the computer. This new technology enables the provision of a novel solution in the use of these avatars in fields such as plastic surgery and Alzheimer's disease, and with which, based on high-quality 3D laser scanners and 2D photographs, Personalised 3D avatars are achieved.

In the case of plastic surgery, and using MODELVIR (Virtual Modelling) within the field of plastic and repair surgery, the surgeon is provided with an easy-to-use tool which enables graphically representing the current state of the patient, as well as a novel, three-dimensional representation of his or her external aspect after the operation. In this way the patient has a better idea of what the plastic surgeon can achieve, without creating illusions or raising false hopes that could give rise to subsequent disappointment.

Then there is ALZHERAPY, a technical project linked to the fight

against Alzheimer's disease and that aims to provide rapid diagnosis for this pathology. Thus, the rate of advance of the disease slows on carrying out cognitive exercises. It has the added possibility of undertaking the daily monitoring and evaluation of the patient in a personalised manner, using an avatar that represents a person with a close likeness to him or her, and without having to leave the house. It even provides the possibility of enabling the patient to leave home without accompaniment (thus leading a normal pace of life) with total security, thanks to a device capable of detecting his or her position at any time.

Provided by Elhuyar Fundazioa

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