An Interactive Virtual Try On

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ABSTRACT
This interactive application will allow visitors to play with garments in three dimensions, transforming them into creative, customizable and experimental objects. Based on touch-screen technology and through a simple and attractive interface, visitors will be able to dress and customize a 3 dimensional virtual fashion model. The model will pose for you to show off the physically simulated garments in real time.

KEYWORDS: virtual try on, garment simulation, virtual fashion.

INDEX TERMS: I.3.7 [Computer Graphics]: Three-Dimensional Graphics and Realism—Virtual Reality

1 THE DEMONSTRATOR
The Virtual Try On is an application which combines virtual avatars, virtual fashion and garment simulation technologies into a single interactive application.

The visitor will have the possibility, via touch-screen interaction, to dress a virtual mannequin by choosing a garment from a selection of clothes. The garment will automatically adapt to the 3D mannequin’s shape by means of physical simulation. Through easy to use touch-screen manipulation, the user can interactively change the fabric colour, fabric types and select other options which will be immediately visualized. Once the mannequin has been dressed, the user can see her walk around in the garments she selected. Since our virtual mannequin doesn’t tire, the visitor will see it moving around in virtual clothes without a break!

The set-up (figures 1 -4) consists of a touch-screen display connected to a notebook which runs the Virtual Try On application. While other visitors can gather around the setup, a projector will also be attached to project the view onto a wall for all visitors to see.

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A demonstration to the Swiss Ambassador during Singapore's Digital Nights 2010 exposition at Sculpture Square.

2 MIRALab - UNIVERSITY OF GENEVA, SWITZERLAND

The MIRALab research group at the University of Geneva was founded in 1989 by Nadia Magnenat-Thalmann and has pioneered the research of virtual human simulation and clothing animation which is one of our major research topics. Since 1992 MIRALab has participated in more than 45 European Projects. International conferences such as CASA and CGI are often organized in Switzerland by MIRALab. Moreover, MIRALab produces displays for museums and galleries, such as fashion shows or cyberdances with virtual models and clothes.

3 INSTITUTE FOR MEDIA INNOVATION - NANYANG TECHNOLOGICAL UNIVERSITY, SINGAPORE

The Institute for Media Innovation has been created in 2008 at Nanyang Technological University in Singapore. One of the main mission of this Institute is to educate the next generation of scientists and technologists in the multi-disciplinary field of interactive digital media (IDM) by harnessing and leveraging on their strong engineering, design, educational and social science research potential. The group is composed of interdisciplinary researchers and 17 PhD students in various fields of digital media.

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