



Virtual Fitting Room

Overview

Virtual Fitting Room provides motion-based interaction to the users and suggests various outfits.

The system can be easily installed inside or at the window of a retail shop, enabling the users to stand in front of it and see themselves wearing clothes that the system suggests while they are able to naturally interact with the system remotely, using gestures, in order to like or dislike the recommended outfit. The users can also choose to post photos of themselves wearing the proposed clothes on their social media accounts, as well as to buy the clothes either directly from the store or on-line.

Main screen

The main screen is divided into three sections (top, middle and bottom). The top presents the logo of each store as well as menu options, such as language, gender and clothes category. The middle part is the actual AR area of the system, displaying a real-time video of the user standing in front of the system wearing virtual garments of the selected category superimposed on his/her body. The bottom section comprises the Buy and View Photos button.

Like / Dislike

The user can Like or Dislike an outfit. A disliked outfit is removed and a new one is suggested.

Split screen

This feature, which enhances the user's shopping experience, is the double projection when the user tries on items. The system provides in real-time a split view of the AR area, presenting the user wearing two different outfits, supporting easy comparison.

Passport

"Passport" is a code used as a unique identifier that gives access to an online html page containing all the products the user liked, as well as the photos taken by the system. A



Interacting with Virtual Fitting Room



Main screen



Split screen in order to compare virtual clothes



QR code obtained by the system

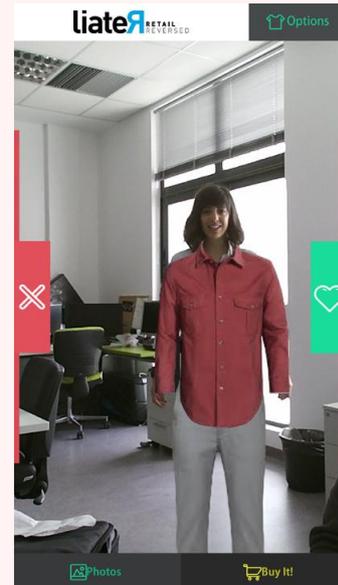
Passport can be also obtained through QR code, so that users can gain immediate access to their personal page through their mobile devices.

Vertical layout

Both horizontal and vertical display with automatic rearrangement of the UI components is supported, in order to fit the aspect ratio of each screen. All the features are provided equally in the two projections.

Interaction Techniques

Interaction with the system is achieved through gestures via hand tracking. The user's skeleton is acquired using a Microsoft Kinect version 2 depth sensor. The hand movement is recognized and mapped to a virtual hand cursor (mouse emulation). Skeleton tracking is also used to calculate the minimum distance needed in order to start tracking the user and enable the application, to know when the user has left the mirror and to place the virtual clothes correctly on the user's body according to the user's skeleton joints tracked by the sensor.



Vertical layout

Additional Information

Temporary public installations:

- Researchers' Night 2016, Heraklion
- China Hi-Tech Fair 2016 (CHTF) 81st Thessaloniki International Fair 2016
- Researchers' Night 2015, Heraklion
- 80th Thessaloniki International Fair (TIF)



Virtual Fitting Room web page

www.ics.forth.gr/ami/project/virtual-fitting-room/

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