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Mirror, mirror on the wall, who's the smartest of them all? We all remember this fairy tale about the magic mirror. Maybe you even wanted to have one of your own. There's no doubt that all girls dreamt about it. Now it's not a dream: the thing that you take for granted – that piece of glass that you look into every day – is also getting smarter, just like everything else in your house. New modern mirrors are called interactive mirrors or smart mirrors. An interactive mirror consists of HD, Mirrorvision optical glass, plus intouch 6-point multi-touch. Interactive mirrors are a frameless solution, ready to integrate into both modern and traditional interiors. They are perfect for fitting rooms, exhibitions, branded merchandising themes, car showrooms, etc. Here we would like to introduce a few interesting examples of this technology. Hunting for clothes in a busy shop can be a nightmare, but shopping online can be a failure. This has led to a number of companies coming up with a compromise - interactive mirrors in shops that let you virtually try on different outfits, explore colours and patterns, and even order food. The latest to be rolled out in the US is the MemoryMirror (MemoMi) that uses augmented reality to show how clothes will fit, and lets shoppers change outfits with the swipe of a hand [1]. MemoMi uses Intel integrated graphics technology to create avatars of the shopper wearing various clothing. Using hand gestures, shoppers can scroll through different colours, patterns and sizes, and the smart mirror remembers previous outfit choices, so the shopper can compare

and contrast. ABYSS GLASS mirror, for example, will tell clients what are the must-have items of the season, what are the best offers and promotions [2]. The HiMirror acts as a daily beauty consultant: it actually uses its built-in smarts to tell you something different, like the condition of your skin, which can be used to build a daily skincare regimen, track results, and see improvement over time. HiMirror was developed under the supervision of professional consultants in the fields of dermatology, cosmetics (applications and raw materials), skincare, and medical beauty, making HiMirror a quality personal skincare consultant you can trust [3]. By taking a makeup-free photo with the HiMirror's integrated highresolution camera, the device's proprietary technology analyzes dark spots, red spots, dark eye circles, wrinkles, pores, fine lines, and other complexion elements. From these, it creates a personalized Skin Index Synthesis report, which reports on skin firmness, brightness, texture, clarity, and overall healthiness [4]. HiMirror includes some of the standard smart mirror features, like displaying the local weather, syncing to your Google calendar or playing Spotify. It even includes facial and voice-recognition capabilities, which allows more than one family member to reap the benefits of automated skin analysis. Did we mention that there is a virtual makeup feature to preview how you'll look with the makeup? The mirror knows what colours fit you best, from foundations to lipsticks. Afterwards, the mirror reviews the makeup products used to achieve the perfect makeup look. Beauty journey has never been this simple and exciting. It also guides you through beauty routines thanks to a series of tutorial videos. Even Snow White's wicked stepmother wouldn't have thought that one day the mirror could tell her such things!

Competition gets more intense with the MirroCool, which promises a smart mirror incorporating facial and gesture recognition technology. It can recognize up to 70 distinctive

facial positions and use them to complete the task you name, without any taps, swipes or verbal instructions. This 60 centimetres by 80 centimetres smart mirror comes in a water-resistant bathroom version and another for the hallway in four colour choices. When switched off, it looks just like another mirror, but once activated it can sync up with your schedule on Google Calendar, iCloud or Office 365. Just stand in front of it and it gives you medical reminders, traffic reports, weather updates and calendar alerts. MirroCool is a security device as well. The integrated Face Recognition technology keeps track of every family member in the house, as well as people whose profiles you have provided. When it *sees* someone it does not know, it will alert you or sound the alarm. You can also make live checks of your home through the designated mobile app [5].

## References:

1. Mode of access:

http://www.dailymail.co.uk/sciencetech/article-2906563/Theend-fitting-room-queues-Smart-mirrors-lets-virtually-tryclothes-order-drinks.html. – Date of access: 15.03.2018.

2. Mode of access: https://abyssglass.com/pdf/AG\_ENG.pdf. – Date of access: 15.03.2018.

3. Mode of access:

https://www.himirror.com/eshop/us\_en/product/himirrorrc. – Date of access: 22.03.2018.

4. Mode of access:

https://www.digitaltrends.com/home/himirror-smart-mirror-announcement/. – Date of access: 20.03.2018.

5. Mode of access:

http://www.scmp.com/native/lifestyle/topics/premier-

living/article/2123750/you-talkin-me-smart-mirrors-do-talkback-and. – Date of access: 20.03.2018.