

INTELLIGENT PERSONAL-CARE ENVIRONMENT -

the bathroom cares for you



The intelligent personal-care environment introduces Ambient Intelligence in the bathroom. Based on personal preferences it can start playing different applications on an interactive mirror display. The mirror display is the central interaction with the bathroom; not only can it be used for viewing the media, already available in other places of the house (TV, Internet, video, etc.), it also interacts with the devices regularly used in the bathroom. A shaver initiates an assistant, showing the right shaving pressure to use and warning to

recharge the batteries. While brushing their teeth, children can watch their favourite cartoon. A scale, displaying the weight in the mirror; can also activate the health coach informing the user about the cardiovascular state of health and give advice on improvement, also based on measurements from the activity monitor and heart rate sensor.

The heart of the intelligent personal-care environment is formed by the mirror display device; a combination of one or several flat displays, and a mirror surface, where the device itself is in the first place seen (and used) as a plain mirror, only switching to display mode on demand of the user. Several techniques from flat displays and a new →

method of combining these with a mirror foil are being used to enhance the displaying specifications of the system, while the applications of the mirror display device can also be found in a broad range of other areas, such as automotive displays.

A special point of care, within the scope of the intelligent personal-care environment is the interactivity which takes place between the



mirror display device) and the several personal-care devices (weight scale, shaver, etc.) low-power radio-frequency protocols (ZigBee) are used.

user, the mirror display and other devices and utilities in and around the bathroom. Several methods for person recognition (e.g. by weight, height) are being investigated and combined with the knowledge of personal preferences with respect to preferred media programmes or device settings. Other means of interactively controlling the system, currently under investigation, are speech control, gesture recognition, etc. For the connection between central processor (as part of the

The health coach sub-system is developed around several sensors, measuring health-related data and, by combining these measurements with past data and using physiologically dependable models, gives information and advice with respect to several aspects of the users health, displayed on the mirror. With measuring heart rate and activity outside the home environment, the health coach is an example of how the intelligent personal-care environment can be extended beyond the bathroom. ←

More information:
mark.lazeroms@philips.com