

Abstracts of original contributions

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Augmented reality as a doctor support to meet the General Data Protection Regulation in Europe

Klaudia Proniewska¹, Damian Dołęga-Dolegowski¹, Agnieszka Pregowska², Dariusz Dudek²

¹Department of Bioinformatics and Telemedicine, Jagiellonian University Medical College, Krakow, Poland

²Institute of Fundamental Technological Research, Polish Academy of Sciences, Warsaw, Poland

³Institute of Cardiology, University Hospital, Jagiellonian University Medical College, Krakow, Poland

Background: General Data Protection Regulation (GSPR) created by the European Nation aims to harmonize data protection rules and everyone in Europe is obligated to follow it. Unfortunately, one can still find doctors who have on their desk subjects documentation from the current and sometimes even the previous day. On the other hand, display data using PC/Laptops are limited to a few rigorous conditions like the location of the power socket, free space on table/desk, and the display angle.

Aim: This paper aims to develop an Augmented Reality (AR) based application using an advanced technology

device – Microsoft’s Azure Kinect DK camera and HoloLens glasses.

Methods and results: The scheme of the proposed support systems is presented in Figure 1. Rooms where doctors work, such as a doctor’s office, an exam room, an operating room, and a treatment room will be transferred to the digital form in real-time. The proposed solution will give new possibilities and enable additional support in the clinical diagnosis process, during medical procedures and the preview of the procedure from a different non-standard location without spatial restrictions related to the perspective of the Operator. A remote person could mark on his screen or AR device place, on which he/she wants to show, mark or point. The same information can be displayed on surgery glasses as a hint, it does not disturb his/her activities performed. Moreover, the proposed doctors’ support tool allows also greater flexibility to learn and interact inside the worldwide medical community.

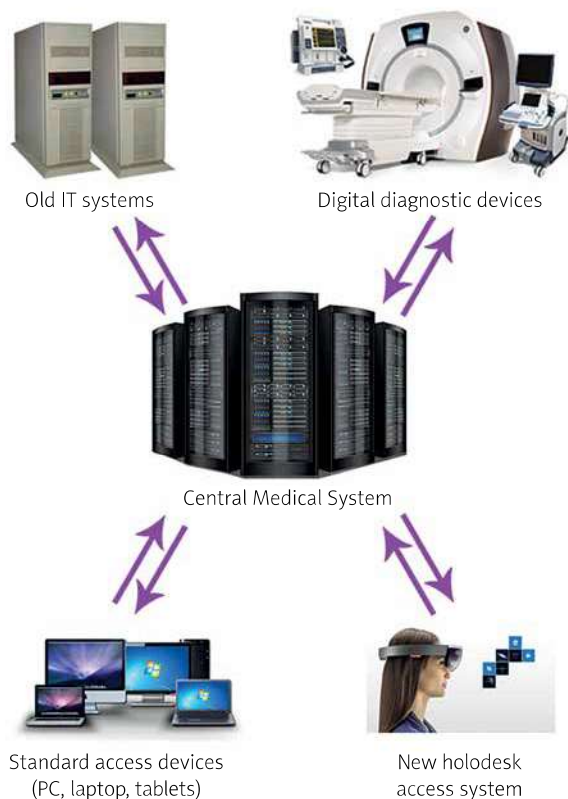


Figure 1. The scheme of the holographic system of the doctors supports