

Metaverse in Future Personal Healthcare Industry: From Telemedicine to Telepresence

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Abstract : Metaverse involves the convergence of three major technologies trends of AI, VR, and AR. Together these three technologies can provide an entirely new channel for delivering healthcare with great potential to lower costs and improve patient outcomes on a larger scale. Telepresence is the technology that allows people to be together even if they are physically apart. Medical doctors can be symbolic as interactive avatars developed to have smart conversations and medical recommendations for patients at the different stages of the treatment. Medical digital assets such as Medical IoT for real-time remote healthcare monitoring as well as the symbolic doctors' avatars as well as the hospital and clinical physical constructions and layout can be immersed in extended realities 3D metaverse environments where doctors, nurses, and patients can interact and socialized with the related digital assets that facilitate the data analytics of the sensed and collected personal medical data with visualized interaction of the digital twin of the patient's body as well as the medical doctors' smart conversation and consultation or even in a guided remote-surgery operation.

Keywords : personal healthcare, metaverse, telemedicine, telepresence, avatar, medical consultation, remote-surgery

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