

A Conceptual Framework of Digital Twin for Homecare

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Abstract : This article proposes a conceptual framework for the application of digital twin technology in home care. The main goal is to bridge the gap between advanced digital twin concepts and their practical implementation in home care. This study uses a literature review and thematic analysis approach to synthesize existing knowledge and proposes a structured framework suitable for homecare applications. The proposed framework integrates key components such as IoT sensors, data-driven models, cloud computing, and user interface design, highlighting the importance of personalized and predictive homecare solutions. This framework can significantly improve the efficiency, accuracy, and reliability of homecare services. It paves the way for the implementation of digital twins in home care, promoting real-time monitoring, early intervention, and better outcomes.

Keywords : digital twin, homecare, older adults, healthcare, IoT, artificial intelligence

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