TELEOPTOMETRY & HOW AI ENHANCE TELEOPTOMETRY

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Abstract :-

Teleoptometry is an emerging branch of telemedicine that leverages digital communication technologies to deliver eye care services remotely. This model has proven crucial in increasing access to optometric care, especially in underserved or rural areas where specialist availability is limited. By facilitating remote consultations, visual acuity assessments, and basic diagnostic evaluations, teleoptometry reduces barriers related to distance and time, enabling timely intervention and follow ups. The integration of Artificial Intelligence (AI) significantly enhances the effectiveness and scope of teleoptometry. AI-powered diagnostic tools can assist in early detection of ocular conditions such as diabetic retinopathy, glaucoma, and age-related macular degeneration through automated image analysis of retinal scans and other ocular data. Machine learning algorithms also personalize patient care by analyzing vast datasets to predict disease

progression and suggest tailored treatment plans. Furthermore, AI-driven chatbots and virtual assistants improve patient engagement and streamline administrative workflows, allowing optometrists to focus more on clinical decision making.