# AI-Enabled Digital Healthcare Platform for Personalised Health Monitoring and Virtual Consultations

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## Abstract

Utilising Artificial Intelligence (AI) can change the process of in-person delivery of healthcare into a process that is more efficient, user-friendly, and remote for all users. This proposal will specifically develop an AI-Enabled Digital Healthcare Platform for Personalised Health Monitoring and Virtual Consultation, creating the ability to lead the way in changing the traditional healthcare model to a smart patient centered healthcare system. The Digital Healthcare Platform utilises sophisticated machine learning models, and utilises flow of data streams through Electronic Health Records (EHR) and clothes, wrist, or face worn sensors to monitor some key health parameters at any given moment including heart rate, blood pressure, blood glucose, and physical activity. The Digital Health Platform utilises the methods of predictive analytics and pattern recognition and will enable the ability to detect evidenced based first signs of on health decline (i.e. onset of chronic disease) and provide early alerts and personalised recommendations. This allows to data to not only assist patients in making proactive healthcare decisions related to daily living, but will assist their doctors maximise informed clinical decision through high quality real-time data. The Digital Health Platform will also allow for secure and user- friendly services of a virtual consulting with the ability to spy on medical experts as they connect with their patients online and from their own homes, if available. This gives meaningful services to those operating from a distance, who would normally not have access to academic and surgical medical resources for treatments.

## Keywords

Artificial Intelligence (AI), Digital Health Platform, Electronic Health Records (EHR), Reinforcement Learning.