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Artificial Intelligence in Healthcare

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We are living in the information age. Artificial Intelligence (AI) and big data have greatly impacted our daily lives. In recent years, the health care industry has benefited from the rapid development of technologies (Siau & Shen, 2002, 2006). AI technology has also been used in healthcare from many applications such as clinical practices, support hospital works, and disease prevention (Wang & Siau, 2019; Stephanidis, 2019). For example, Clinical Decision Support Systems(CDSS) can assist healthcare in many ways, including diagnostics, treatments, (Lysaght, Lim, Xafis, & Ngiam, 2019), alarm systems, prescriptions, and drug controls (Sutton et al., 2020). Also, some AI-based robots are developed to perform routine tasks to support hospital professionals (Blechar & Zalewska, 2019). But there are still many challenges in using AI in healthcare. For example, ethical challenges, privacy challenges, and the problems with unexplainable AI (i.e., black box) (Siau & Wang, 2020). These challenges affect trust-building. This research will study the AI applications in the healthcare industry and identify issues caused by ethical and privacy challenges. The research involves interviews and surveys. Qualitative case studies will be conducted to examine how AI can be used in the healthcare industry and enhance the working efficiency of healthcare professionals. Interviews will be carried out with executives from IT and healthcare companies that have implemented AI technology in healthcare. Surveys will be used to triangulate the qualitative data. Studying the application of AI in healthcare is of vital importance to the healthcare industry, especially at this time when we are facing a severe pandemic due to COVID-19. The results of this research will benefit both academics and professionals.

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