Artificial Intelligence and COVID-19 Pandemic Management

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The COVID-19 pandemic started in 2019. The world’s economy is challenged and our daily lives are changed, maybe forever (Xie et al. 2020). Artificial intelligence (AI) has been and can be utilized in COVID-19 pandemic management (Wang & Siau, 2019; Stephanidis et al., 2019; Siau & Wang, 2020; Nah & Siau, 2020). AI can help with tracking and managing the spread of the COVID-19 pandemic (Vaishya, Javaid, Khan, & Haleem, 2020), analyzing and monitoring real-time pandemic data, assisting in medical diagnoses such as helping doctors to simulate the effect of drugs, optimizing the supply chain (Siau & Shen, 2002), and providing non-contact identification and medical assistance such as chatbots and drone delivery of drugs. Also, biometric surveillance can identify people with high temperatures (Chen, Marvin, & While, 2020), and drones with biometric surveillance equipment can help to detect potentially infected people quickly. Researchers are also experimenting with AI robotics such as disinfecting robots and robots offering contactless services, and machine learning algorithms to provide forecasting and tracking. This qualitative research focuses on understanding the use of AI technology in COVID-19 pandemic control. We will conduct multiple case studies through interviews. Survey will also be used to triangulate the data. The goals of the research are to understand the current use of AI technology in COVID-19 pandemic control, recognize the advantages and challenges in using AI, and identify research directions so that AI can be more effective in addressing the next pandemic. This research will contribute to both the medical and IT industries. Both researchers and practitioners will be able to utilize the results of this study to better combat the current COVID-19 pandemic and to prepare AI for the next pandemic.

References