How AI is leveraging its services to help from Covid19

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Abstract‑ COVID-19 has been the current health infectious infection caused by the currently discovered coronavirus. The virus is transmitted through droplets produced when an infected person sneezes, coughs and exhales. The spread of the infection has been unstoppable and has contributed to thousands of deaths across the world. As a result, physicians, doctors, nurses, and other critical health care specialists are actively involved in numerous practices to generate a cure for the infections and vaccines to improve each person's immunity to reduce the number of death caused by the disease. Artificial intelligence can offer great help against COVID-19. Artificial intelligence is critical in health improvement since it focuses on implementing technologies in developing screening algorithms that help the health system (Zhou et al., 2020). To defeat COVID-19 artificial intelligence experts have played a crucial role in identifying technological answers which support health care organizations and doctors in current difficult times. This paper will address how artificial intelligence is leveraging its services to help from COVID-19.

Keywords‑ **Covid-19 pandemic, Artificial Intelligence, Information Technology.**

INTRODUCTION

The complication and rise of data related to COVID-19 in health care mean that AI will increasingly be implemented to control and develop health measures to curb the disease's impacts. Health care providers have adopted various artificial intelligence types in diagnosis and treatment recommendations, adherence and patient engagement, and administrative actions. AI is leveraging its services to help from COVID-19 through multiple technologies, including neural networks, specialized in determining specific patterns within data correlation models and images corrected in monitoring the infection. The identified patterns can be applied in supporting screening and, afterward, to build the evaluation therapies more potent on the collected data, hence improving the estimation of the disease's course and the chance of recovery and recurrence (Chamola et al., 2020).

As the COVID-19 outbreak escalates to a global pandemic, artificial intelligence has become an essential defense in fighting the infection. In the case of COVID-19, AI services are leveraging against the disease by identifying patients at higher risks of experiencing severe respiratory infections and respiratory failure. Artificial intelligence includes screening technologies that help monitor each patient from the respiratory difficulties that may contribute to death. Machine learning is implemented hand in hand with AI and helps in leveraging against COVID-19 in identifying unrelated complications from respiratory infections. The excerpts are applying machine learning and artificial intelligence in conducting studies and research on the virus. The virus lessons have provided the appropriate measures to control the spread of the infections, including provision and utilization of sanitizer necessary in killing the virus when it gets in our hands unknowingly (Ahuja et al., 2020).

Artificial intelligence is helping in leveraging against COVID-19 through potential testing treatments. The occurrence of the COVID-19 pandemic has increased the rate of mortality and the spread of the infection. Hence, health practitioners and scientists are actively implementing artificial intelligence in testing the potential treatments and medication against diseases. For instance, currently, health practitioners and scientists, through the successful utilization of AI, have successfully developed various types of vaccines that are effectively used to improve individual immunity in fighting against infections. AI has been effective in measuring the success of the vaccine to be applied and the associated side effects to prevent more health problems from vaccination. The other important role of AI in leveraging against COVID-19 is diagnosing individuals. AI includes various techniques that help diagnose patients suffering from the infection to identify the disease's current patterns and trends. Identifying the condition's way and directions have been appropriate in determining the type of vaccine and medication that should be enhanced against the infection. Diagnosing individual through artificial intelligence helps in the safekeeping of data necessary in forecasting the possible outcomes of the disease in the future (Chettri et al., 2021).

Artificial intelligence is playing a critical role in leveraging against COVID-19 through analyzing the public health impacts. Exploring the public health impacts has been appropriate in controlling the infectious disease through identifying appropriate measures that the public should utilize to prevent infection from the illness, such as wearing musk and keeping social distance. Artificial intelligence and machine learning are relevant in leveraging against COVID-19 through supporting clinical research, biomedical discovery, medical devices, and precision medicine (Pham et al., 2020). Implementation of such elements provides new possibilities to

health providers, researchers, and patients, supporting them in suggesting improved decisions necessary in promoting better health outcomes. Supporting AI technologies in health care facilities has improved approaches in leveraging against coronavirus through their potential to enhance effectiveness and efficiency to the health research, health care ecosystem and enhance the quality of patient care during the pandemic period and in the future. Health care providers are considering implementing AI in confronting the threats linked to the current crisis (Chatterjee, 2020).

AI has become a significant component in leveraging against the pandemic. The hospital is adopting it in triaging and screening patients and determining patients likely to develop severe symptoms. They are also successfully scanning faces to check individual temperatures and control fitness tracker data that retain the corrected data. The health facility is also implementing the AI to keep tabs on the virus within its community to enhance successful measures such as lockdown to reduce the community movement effective in reducing interactions that would increase the level of infection (Imran et al., 2020). The tabs are appropriate in identifying members with the disease, members likely to get the condition, and the supplies that will run the health facility in preventing the infection. The AI systems are applied in analyzing the trouble data that is constantly rising as the infection cases increase. Health facilities are successfully adopting AI leveraging against the virus by identifying the appropriate drugs and vaccine candidates to curb the infections' impacts. The AI technology is right in tracking and forecasting the spread of the virus within the nation and the entire parts of the world. AI technology has supported leveraging against the infection by implementing dial emergency response numbers against individuals identified with symptoms or the disease (Sengar, 2020).

AI would also be appropriate in catching the infection's initial symptoms in the health care workers, who are at a higher risk of contracting the virus. The early indication of COVID-19 includes increased temperatures and elevated heart rates. Moreover, AI application is appropriate in detecting COVID-19 a differentiating it from other related respiratory diseases for proper medication. Through the correct analysis from AI technologies, health workers can effectively predict the COVID-19 patients' deterioration. This is appropriate in supporting the clinical researcher and health practitioners in identifying the severe symptoms of the infections necessary in developing the type of medicine and vaccine to enhance better patient health outcomes (Cresswell et al., 2021).

AI is also supportive of leveraging against COVID-19 by tracking hospital beds and supplies necessary to update the health organization and the government when the health facilities may run out of ventilators, mattresses, and other critical resources essential in ensuring better health to patients even during the pandemic period. For instance, Definitive Health Care and Esri create mapping and spatial analysis

software and have developed a tool that monitors hospital beds' capacity in the United States. The tool effectively tracks the location and the number of licensed beds and intensive care unit beds and indicates the utilization performance or rate. Different hospitals and several companies are also implementing AI-powered tools in remotely detecting high temperatures and blocking infected persons from getting into public institutions. Temperature monitoring helps remotely detect individuals with fever and prevent them from joining public places since fever is the initial symptom of coronavirus infection. As more experimental therapies are being enhanced to COVID-19 patients, monitoring their trend on the applied drugs would the following role in AI system applications. Hence, artificial intelligence is appropriate in gauging the responses from the experimental treatments (Fegan & Cheah, 2021).

In conclusion, as the COVID-19 infection increases globally, AI is the frontline component supporting leveraging from COVID-19 infection. AI is playing a critical role in leveraging effective technology necessary in building computational drug discovery models to support the establishment of a cure for COVID-19. Health organizations have applied AI in different positions to fight COVID-19, including screening infected people and learning about different people's infection patterns. Other implementations include determining patients at higher risks for quick reach out by the health care providers. The other role is screening the frontline health workers since they are at higher risks of contracting the virus. Another critical function is distinguishing the COVID-19 from other related respiratory diseases. Moreover, AI has played an essential role in leveraging against COVID-19 by successfully developing temperature detecting tools that help prevent sick people from joining public centers, including thermal screening face cameras that detect fever, which helps control the infection's spread. AI has effectively helped monitor, maintain analyzing, and support the development of measures and vaccines appropriate in stopping COVID-19 disease.

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