

# COVID-19 PANDEMIC: HOW ARTIFICIAL INTELLIGENCE CAN HELP US

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## ABSTRACT

The current pandemic of COVID-19 – Coronavirus Disease-19, caused by the pathogen SARS-CoV-2, has already killed thousands of people in the year of 2020. That mobilized the scientific community, intending to understand the different aspects of the disease and to propose treatment and prevention modalities. Among the tools applied for this purpose, artificial intelligence (AI) techniques are present since the 1990s. To investigate AI related to studies of infectious diseases, we did a review of literature to understand the potential use of AI to respond to COVID-19. The search strategy used five descriptors: (i) “*Artificial Intelligence*”, (ii) “*Deep Learning*”, (iii) “*Machine Learning*”, (iv) “*COVID-19*” and (v) “*SARS-CoV-2*”, which have been combined to search for articles in the PubMed and ResearchGate databases. From the 48 citations obtained, it has been selected eight papers for discussion. The bibliographic search has been complemented with texts of previous knowledge of the authors. The subjects covered in the chosen bibliography have been organized into two main study categories: (i) AI for diagnosis; and (ii) AI for controlling dissemination. The final considerations point out the main complications for the proper use of AI and the possibilities of its application to support decision making of health professionals and at managerial levels of public health.

**Keywords:** Artificial Intelligence, COVID-19, Machine Learning.