

Introduction to the Special Track on Artificial Intelligence and COVID-19 (Abstract Reprint)

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Abstract Reprint. This is an abstract reprint of a journal article by Michalowski, Moskovitch, and Chawla (2023).

Abstract

The human race is facing one of the most meaningful public health emergencies in the modern era caused by the COVID-19 pandemic. This pandemic introduced various challenges, from lock-downs with significant economic costs to fundamentally altering the way of life for many people around the world. The battle to understand and control the virus is still at its early stages yet meaningful insights have already been made. The uncertainty of why some patients are infected and experience severe symptoms, while others are infected but asymptomatic, and others are not infected at all, makes managing this pandemic very challenging. Furthermore, the development of treatments and vaccines relies on knowledge generated from an ever evolving and expanding information space. Given the availability of digital data in the modern era, artificial intelligence (AI) is a meaningful tool for addressing the various challenges introduced by this unexpected pandemic. Some of the challenges include: outbreak prediction, risk modeling including infection and symptom development, testing strategy optimization, drug development, treatment repurposing, vaccine development, and others.

References

Michalowski, M.; Moskovitch, R.; and Chawla, N. V. 2023. Introduction to the Special Track on Artificial Intelligence and COVID-19. *Journal of Artificial Intelligence Research*, 76: 523–525.