**Artificial intelligence and the Covid recovery plan**

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June 30, 2021

There is a lot of hype surrounding Artificial Intelligence (AI), and the first step in assessing the extent of its impact is to solve the puzzle and understand what it has to offer. While being attributed to machines with a human level of intelligence, it is viewed as an “umbrella” concept that spans a variety of disciplines and technologies, including machine learning, deep learning, and cognitive computing, among others.

According to Ray Kurzweil, American inventor and futurist, computers will have the same level of intelligence as humans by 2029. Several artificial intelligence-based projects on machine learning, data science or big data are being used in a wide range of fields to effectively predict, explain and manage the possible scenarios which can be caused by different health crises.

There is no doubt that the Covid-19 pandemic is the first global public health crisis of the 21st century. It has already caused a recession, with the global economy shrinking by 5.2 percent last year as per the World Bank Global Economic Prospects report, triggering a dramatic rise in extreme poverty. Moreover, with increasing unemployment it has also resulted in unprecedented levels of debt around the world.

[Jose Mourinho blasts French stars, manager Didier Deschamps over disastrous Euro 2020 campaign](https://nation.com.pk/02-Jul-2021/jose-mourinho-blasts-french-stars-manager-didier-deschamps-over-disastrous-euro-2020-campaign)

According to the United Nations Conference on Trade and Development, the repayments of developing countries with respect to their public external debt will reach between $ 2.6 trillion and $ 3.4 trillion in 2020 and 2021. Moreover, the World Bank has also alarmingly predicted that the pandemic is pushing around 40 to 60 million people into a state of extreme poverty.

Pakistan stands at a much greater risk when confronting these challenges. Many health experts across the nation are of the view that artificial intelligence can play an integral role in not only managing the process of creating efficient boosters for Covid-19 variants, but also for the distribution of vaccines to maximum people across the country.

In addition to this, artificial intelligence systems can also effectively assist in building actionable data sets, allowing doctors to analyse and study root causes of the pandemic. For example, we have seen how machine learning algorithms and computational analyses have played a central role in the vaccine development journey.

[UK Labour party wins Batley and Spen by-election](https://nation.com.pk/02-Jul-2021/uk-labour-party-wins-batley-and-spen-by-election)

Due to the benefits of AI, pharmaceutical companies have now increasingly begun to explore its application to disease-related concerns. In fact, much can be achieved through artificial intelligence by driving innovation in four key areas—drug discovery, vaccine development, public communications, and integrative medicine. With respect to innovation in public communications, government departments can use chatbots via media services such as Facebook Messenger to suppress panic and provide clinical information to the public. Such government-licensed or approved chatbots can comparatively provide truthful and reliable information to citizens.

At present no aspect of integrative medicine specifically for the management of Covid-19 has been validated as being effective in human trials. However, as more becomes known about the pathogenicity of SARS-CoV-2, an AI-based approach can offer great utility in screening possible integrative medicine techniques to reduce the risk of Covid-19. For example, AI based screening methods could be used to specifically screen for integrative options that can help mediate the inflammatory responses to SARS-CoV-2 infection. Such an AI based approach can lead to a far more rapid deployment of integrative medicine techniques in the fight against Covid-19.

[NAB summons CM Buzdar's principal secretary on July 8](https://nation.com.pk/02-Jul-2021/nab-summons-cm-buzdar-s-principal-secretary-on-july-8)

Another new use of AI is in contact tracing or tracking people who have come into contact with the virus in order to contain it. By tracking potential user information including the health and location of individuals and using AI facial recognition, these tools can effectively enforce social distancing and inform citizens of exposure to positive cases. In these challenging times, it has become imperative for pharmaceutical companies and scientific laboratories in Pakistan to partner with industry leaders like Google and IBM who have powerful AI capabilities.

For example, in China, users are assigned a coronavirus score that affects their access to public transport, work, and school. And US government officials have now begun increasing the possibility of mass surveillance by collecting “anonymised, aggregated” data on the location of users from tech giants including Facebook and Google in order to proactively map the spread of Covid-19.

While the situation may seem dire, it is important to raise awareness of AI technologies in the country so that we can alleviate some of the most pressing problems this pandemic has created. The tremendous potential of artificial intelligence must be utilized in the fight against rapid spread of Covid-19 in order to save maximum lives and limit the economic devastation caused by this horrific disease. The situation today is a stark reminder of the need to make serious and sustained long-term investments in science long after this crisis has ended.