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Short Communication

Role of Data Mining Algorithms in Detecting and Diagnosing the Novel Coronavirus (COVID-19)

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Novel coronavirus (COVID-19) pandemic has neither clinically demonstrated antibody nor drugs; in any case, its patients are recovering with the guide of anti-microbial prescriptions, against viral medications, and chloroquine for instance nutrient C supplementation. It is presently clear that the world needs to find quick answers for contain and tackle the further spread of COVID-19 over the world with the aid of non-clinical approaches in order to mitigate the huge burden on the healthcare system while providing the best possible means for patients' diagnosis and prognosis of the COVID-19 pandemic effectively.

As tremendous dataset created the world over identified with COVID-19 pandemic everyday is a treasured resource to be mined and analyzed for helpful, substantial, and novel information or examples extraction for better dynamic to contain the flare-up of COVID-19 pandemic. In fact, there is no drug or vaccine clinically proven to treat COVID-19 pandemic, therefore other non-clinical or non-medical therapeutic techniques are urgently needed to contain and prevent further outbreak of COVID-19 pandemic such as data mining algorithms.

In healthcare area, data mining algorithms has been generally applied in a wide range of uses, for example, predicting patient results, modeling health results, clinic ranking, and assessment of treatment adequacy and infection control and recovery.

The data mining is the process of analyzing or exploring data from different perspectives; summarizing (finding correlations or patterns) and useful information (change and turn data into knowledge). Then, this information and knowledge are used to increase revenue, cuts costs, support decision making, solve problems. It is a process of identifying hidden patterns and relationships within data. It is defined as the use of numerical analysis, mathematical techniques to identify non-trivial numerical relationships within a dataset to derive a better understanding of the data and to predict future results. The data mining serves as fundamental research area with important applications to information system, databases, education, science, business, engineering and medicine. There are a lot of domain that used data mining applications in their platform such as Business, Accounting, Finance, Healthcare, Engineering, Education, and many more. The purpose of data mining is to discover information within database that cannot be revealed by queries and reports. The data mining is applied to huge amount of data and large datasets. This requires the best selection of data mining techniques to extract useful knowledge. These techniques and algorithms are the result of many steps of research and development. Several primary data mining methods can be found in the literature including classification, clustering, regression, summarization and dependency molding. A large number of data mining algorithms have been developed for different purposes; depending on the nature of the problem. There are two primary goals of data mining the first one is prediction and the second one is description. In general, can put the data mining activities can be divided into Predictive Data Mining and Descriptive Data Mining.

The data mining is an interdisciplinary science aiming at developing automatic or semiautomatic techniques to discover knowledge hidden in these databases. Therefore, the decision-making processes in Novel coronavirus (COVID-19) pandemic will work faster and more efficiently. Researchers are needed to be more effective today to face the Coronavirus (COVID-19) by adapting data mining algorithms in order to mitigate the huge burden on the healthcare system. It also, by making the diagnosis and prognosis of the COVID-19 pandemic effectively.