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Neural network in the health care sector is a boon

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Neural networks (NN) gain their origin from artificial Intelligence (AI), a field that has reached every sector available today. Amongst many, the use of NN has gained precedence in the healthcare sector. NN are the simulations of the human brain that operate on numerous algorithms. One such example is Kohonen Networks. These networks are self-organising networks that map input data vectors into a two-dimensional format by performing clustering (grouping unlabelled data). They possess the ability to adapt to unknown input data much like the human brain. In addition, they can produce better results at a faster pace. Their role in health care is gaining importance with new modifications coming in. A project was conducted at University College London which took a large set of data to examine the medical records of the patients. This project aimed to determine the probability of mortality of a patient due to heart disease. It also compared the working load of machines modelled by experts and neural network-made models. Observations showed that expert-designed models could examine around twenty-seven sets of data, while neural network-made models could examine about 600 sets. This proves the great working capacity of the NN-constructed models. Neural networks can recognise and diagnose diseases at a faster rate than humans. Additionally, it provides effective treatment in a short period.

Keywords: Neural networks, Artificial intelligence, Kohonen networks, Self-organising, Algorithms

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