



Artificial intelligence in radiology

Drag the words to correct boxes.

machine learning is a sub-field of *artificial intelligence* that produces computers an ability to learn without specific programming by utilising specific *learning algorithms*. *deep learning* is a specific field of the aforementioned, that seeks to mimic the *neural networks* of human brain. Usually, the main challenge is to find and provide enough high-quality *learning data* for the system as massive amounts of data is needed to achieve *reliable* results.

In medicine, AI can be used, for example, in speech recognition, natural language processing and *image analysis*. AI can be utilised as *augmented intelligence* to support *decision-making* of physicians in many different specialities. In addition, deep-learning algorithms can already *outperform* senior physicians in detecting and *classifying* pathologies in image data. However, the smallest *error rate* is achieved when the capabilities of AI and specialist are combined. In radiology, AI brings new aspects and possibilities in interpreting radiological images as it does not rely solely on image pattern recognitions can process the initial *absorption data* produced by x-rays more efficiently than human do.