

Artificial Intelligence and the Risk of Work Automation in the Future

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Abstract

Beginning in the 1950s, artificial intelligence as a science has evolved, achieving significant progress in the 21st century with the spread of machine learning, neural networks, and deep learning. It is increasingly used to automate routine work, such as image and speech recognition. This creates opportunities for many professions, but it poses a risk of automating some of them. The article aims to identify the likelihood of professional automation being caused by the implementation of artificial intelligence. The analysis will use data collected at <https://willrobotstakemyjob.com/>. In March 2024, 57 professions were identified as having a 100% chance of being automated, and 180 had an 80% chance of being automated. The most at risk are employees performing repetitive activities that will be automated most quickly. This applies mainly to work in administrative and financial positions, e.g., as a credit analyst. Differences were observed in the probability of automation of individual jobs between the results obtained from the model and the voting of users of the service. It was noticed that the least likelihood of automation occurs in the case of tasks related to creativity, problem-solving, interpersonal skills, and a high degree of manual dexterity. The labour market is transforming, which is a challenge for employees and employers. Therefore, it is worth acquiring comprehensive knowledge and skills in various fields, adapting to a dynamically changing world, and being more difficult to replace by artificial intelligence tools.

Keywords: artificial intelligence, HRM, HRM practices, work automation, labour market, IT systems