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Artificial Intelligence and IT-Security

The full text is currently only available in the Deutsch version. A translation will follow.

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With advancing digital transformation and growing labor shortages, many processes are being automated. However, pure software solutions are often unable to adequately map more complex processes. That is why artificial intelligence is used to achieve a higher level of automation. Applications range from fully autonomous robots to artistic designs and IT security applications. In the latter, artificial intelligence is not only a big help, but also Damocles' sword, because it can both help prevent attacks and carry them out in an automated manner. In the process, artificial intelligence itself can become the attacker's target.

This report provides a brief but concise introduction to artificial intelligence (AI), its history and current methods. The report then provides an overview of, on the one hand, current research on the use of AI in traditional IT security and, on the other hand, current attack methods on AI.