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Challenges of using neural networks for encryption.

The artificial neural networks domain is thriving in current times, mainly because ANN are useful in learning to distinguish patterns that are sometimes even impossible for humans. The most common characteristic of ANN, described in many literary papers, is "They work as Black Box". Which is true because ANN learn iteratively from the training data and final state is not reproducible by using any explicit formulation. To use ANN for encryption is a valid choice for a multiple of reasons, but in this paper, we are analyzing challenges and inconsistencies which needed to be addressed to use ANN for encryption. (Received September 14, 2020)