



24th Advanced Patent Law Institute

Machine Learning and AI: Applications, Legal and Ethical Issues and Practical Guidance for Prosecution

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What is Artificial Intelligence?

A 5min primer.



Progression of AI Architecture

1. Artificial Intelligence

Dartmouth workshop and competitive game playing algorithms. [1]

1956

1974

2. AI winter

Lack of progress, defunding

4. Supervised Machine Learning

Improved supervised learning: SVM classifier, regression, clustering [3]

1980s

1990s

3. Neural Networks

Convolutional neural networks for early computer vision [2]

6. Deep Neural Networks

Hidden layers, higher complexity, resource needs and performance [5, 6]

early 2000s

late 2000s

5. Unsupervised Machine Learning

Embedding, dimensionality reduction, feature discovery [4]

8. Trust Experiments

Explainability, deep fakes, and perception interrogation

2010s

today

7. Adversarial Networks

Two DNNs discover and exploit weakness for best model [7, 8]

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