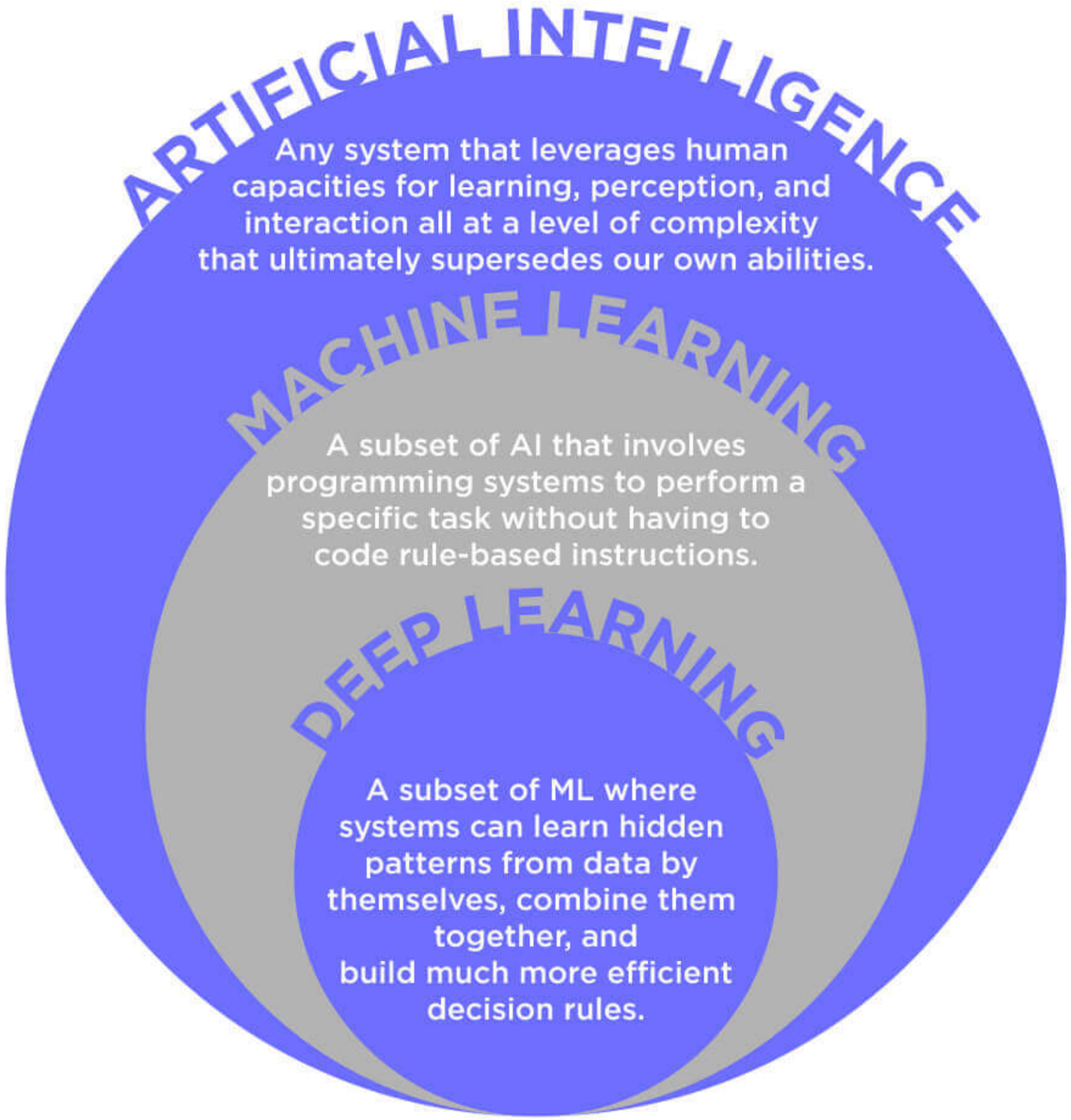
AI

Amir Zare - Summer 2024

Chapter 2: What is AI



Jelvix

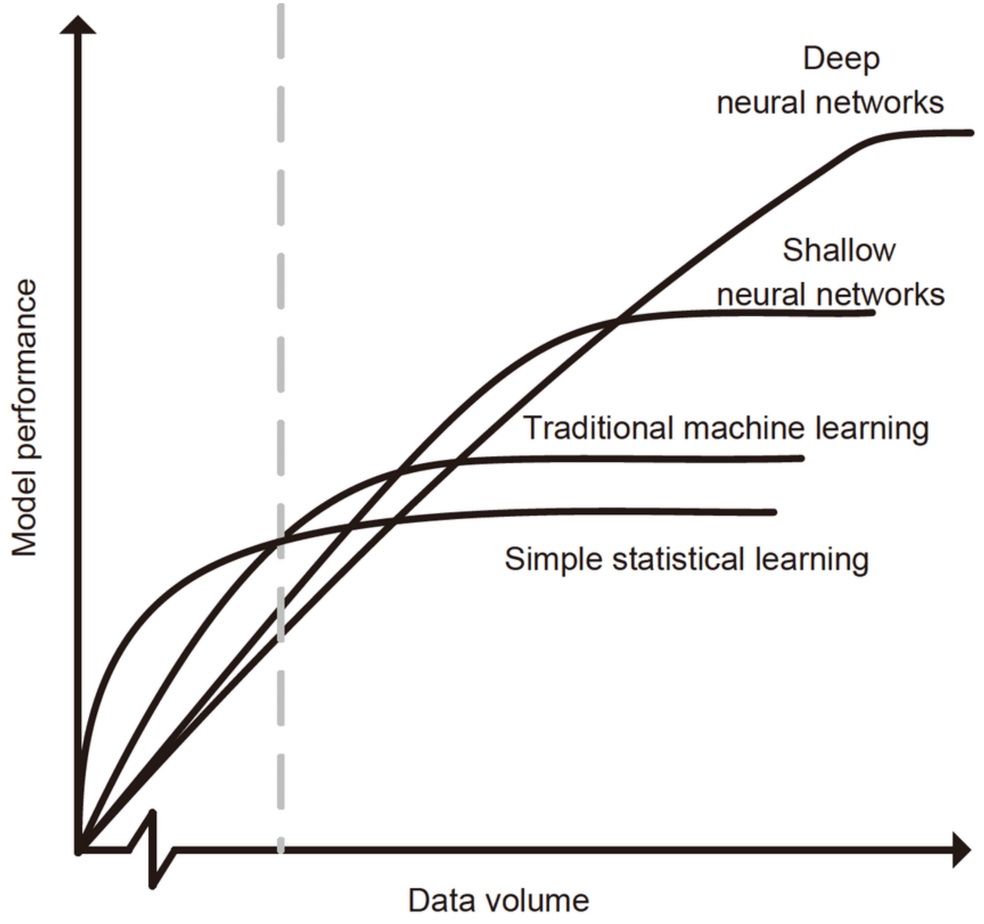
Source: Data Iku

jelvix.com

What is Artifial Intelligence?

What is Artifial Intelligence

We will introduce ML and DL in this course



What is learning?

Different classes of learning

- Supervised learning $\{(x_i, y_i)\} : x \rightarrow y$

- Unsupervised learning $\{(x_i)\} : x \rightarrow x'$

- Reinforcement learning Agent interaction with environment

Different classes of learning

- Supervised learning
  - Prediction
  - Regression
- Unsupervised learning
  - Clustering
  - Association
  - Dimensionality reduction
- Reinforcement learning

$\{(\mathbf{x}_i, y_i) \mid i_{=0}^{=n}\} : \mathbf{x} \to y$

$y \in \{0,1\}$ or $y \in \{c_1, c_2, \cdots, c_k\}$

$y \in \mathbb{R}$

$\{(x_i) \mid i_{=0}^{=n}\} : \mathbf{x} \to \mathbf{x}'$

$\mathbf{x}' \in \{0,1\}$ or $\mathbf{x}' \in \{c_1, c_2, \cdots, c_m \mid m < n\}$

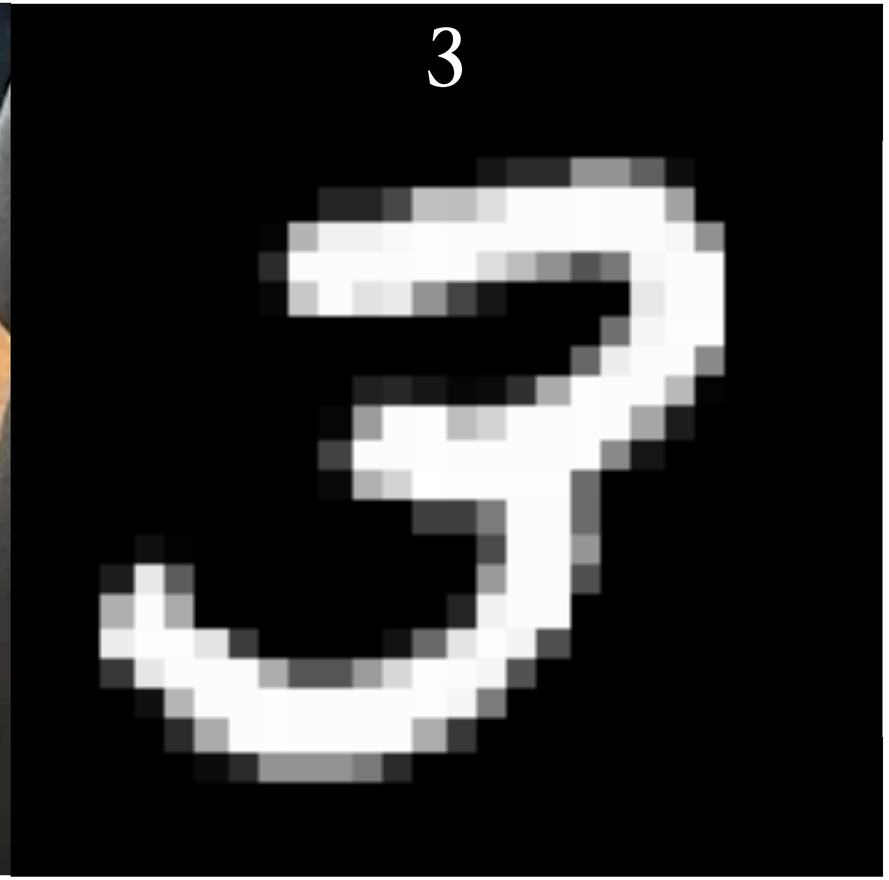
Similarity

$\mathbf{x}' = \{x'_1, \cdots x'_m\}$ and $\dim \mathbf{x}' < \dim \mathbf{x}$

Agent interaction with environment

Different classes of learning

Supervised



Number of bedrooms	Selling price
2	$120,000
3	$140,000
4	$180,000
6	$420,000

Different classes of learning

Supervised

تختی کشتی را آغاز کرد.

A bed started the ship.

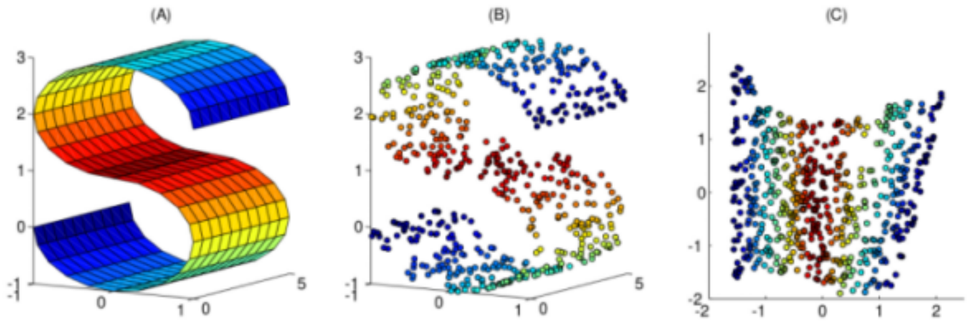
Different classes of learning

Unsupervised

قیمت و ارزش خرید

کیفیت و کارایی

این دسته‌بندی توسط هوش مصنوعی انجام شده و ممکن است دقیق نباشد



در کنارش خریداری شده

کباب زن مدل KM33

۲۹,۵۶۰ تومان

انبر ذغال مدل A01

ارسال فروشنده

۳,۷۵۰ تومان

منقل سفری مدل 3P3

ارسال امروز

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