

# Week 10 - Predictive modeling

L10-01. Introduction to predictive modeling

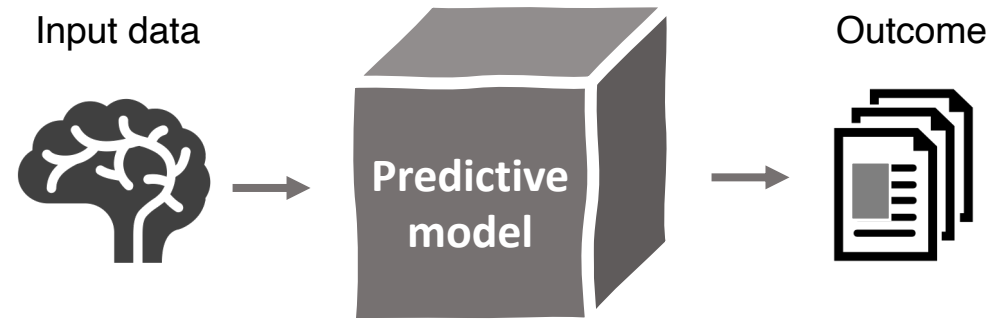
**Lada Kohoutová**

30 April 2021



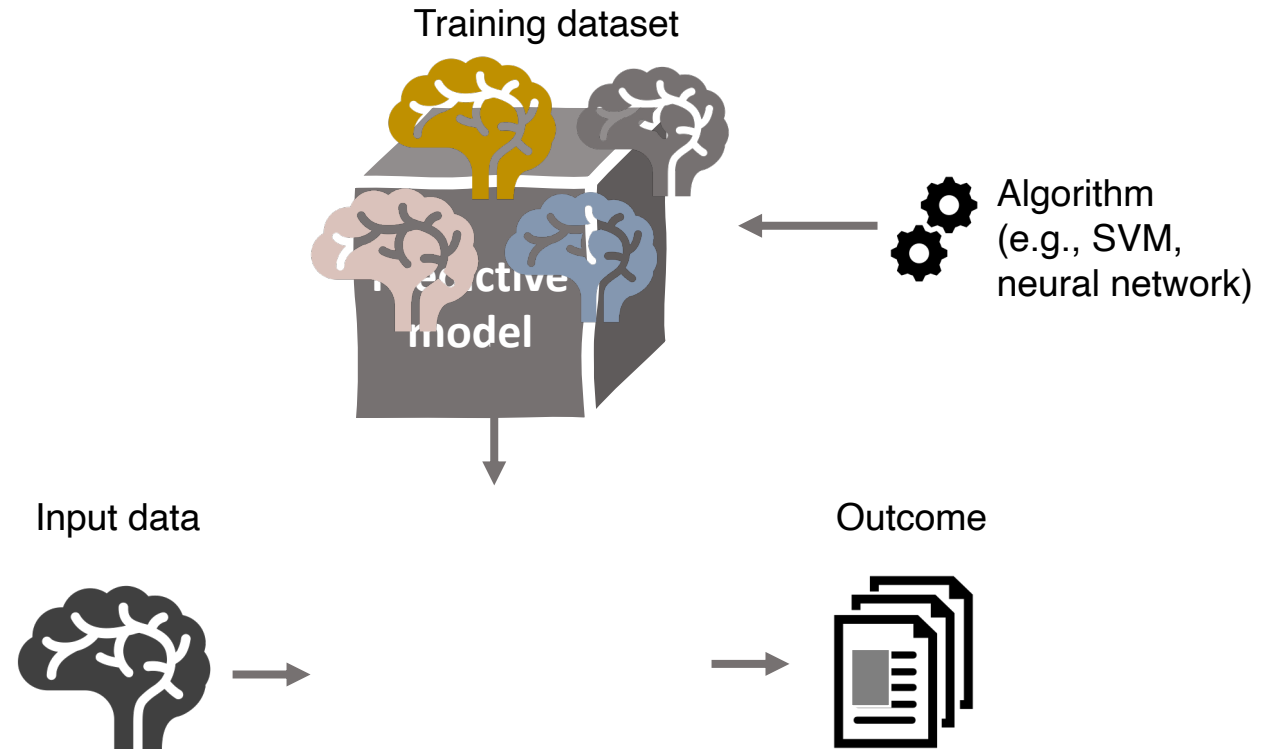
# What is predictive modelling?

- A technique to predict outcomes
- Largely overlapping with machine learning

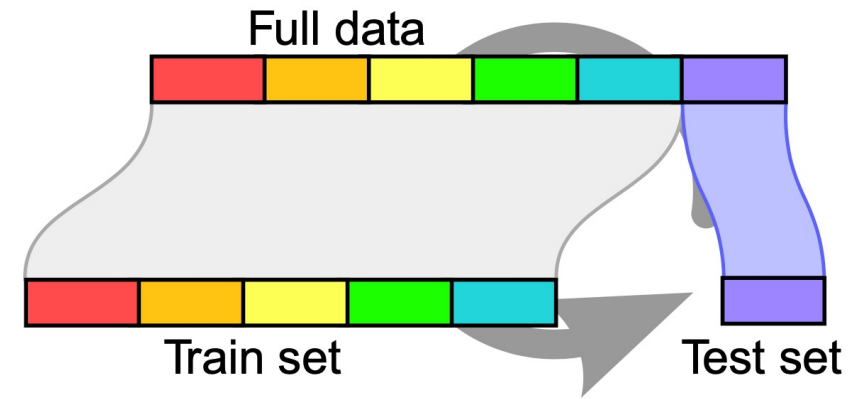


# What is predictive modelling?

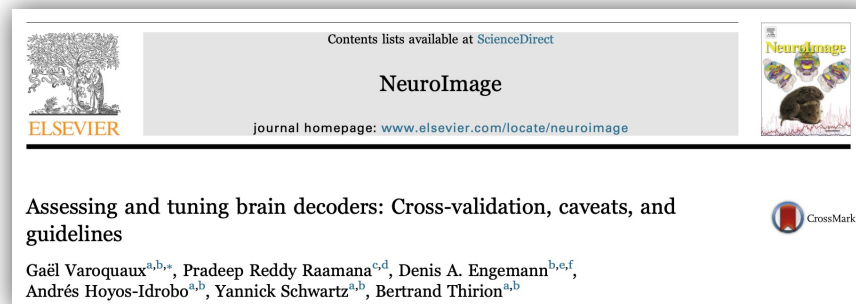
- A technique to predict outcomes
- Largely overlapping with machine learning
- How we make it – we train!



- We evaluate the model performance to:
  1. Assess the model
  2. Select one among multiple alternatives
  3. Tune parameters
- Cross-validation

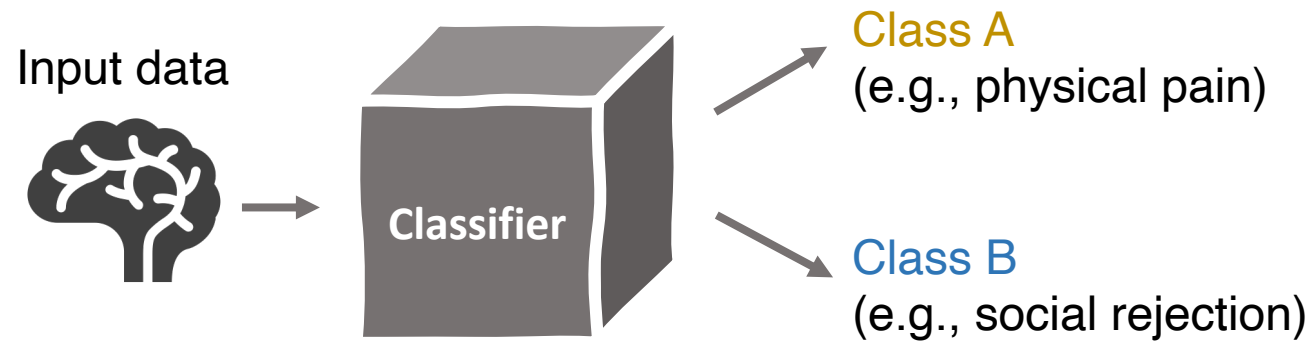


Varoquaux et al., 2017

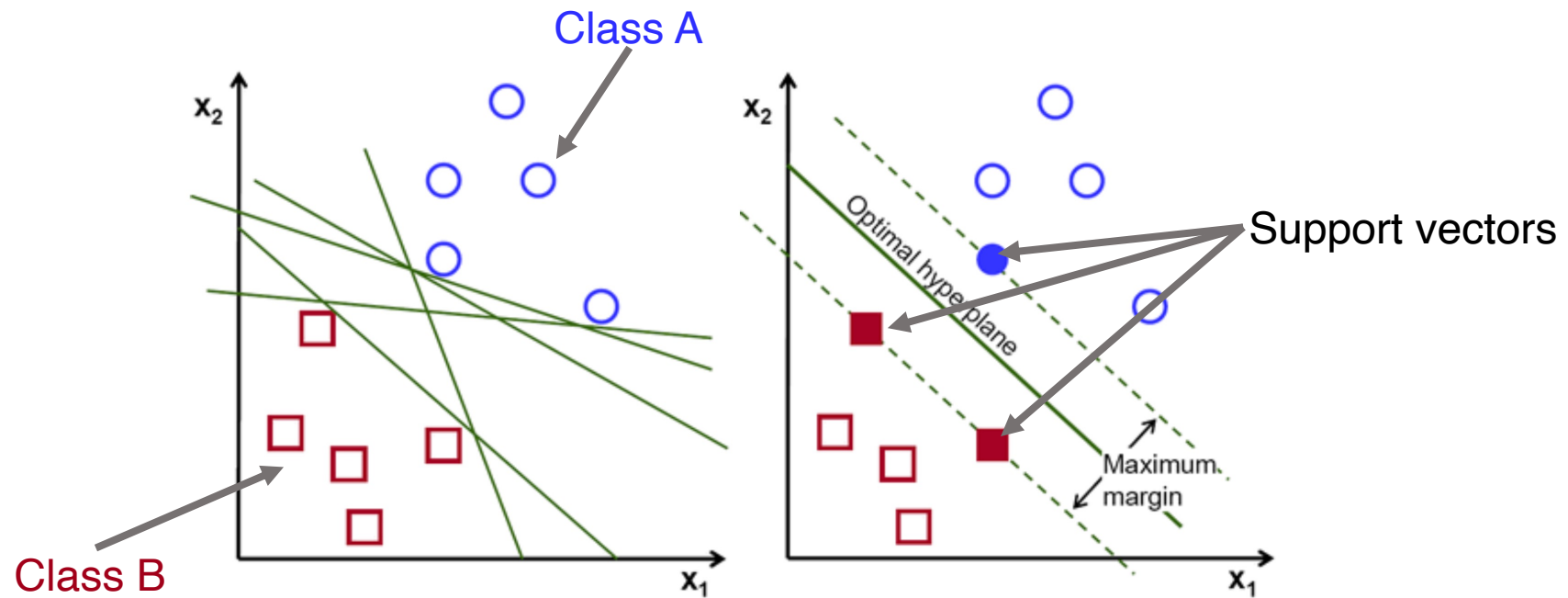


# Classification

- Prediction of a class
- For example, Support Vector Machines (SVM)



- Example algorithm: Support Vector Machines (SVM)



<https://towardsdatascience.com/support-vector-machine-introduction-to-machine-learning-algorithms-934a444fca47>



- Example of SVM in practice: Woo et al., 2014, Nature Communications

