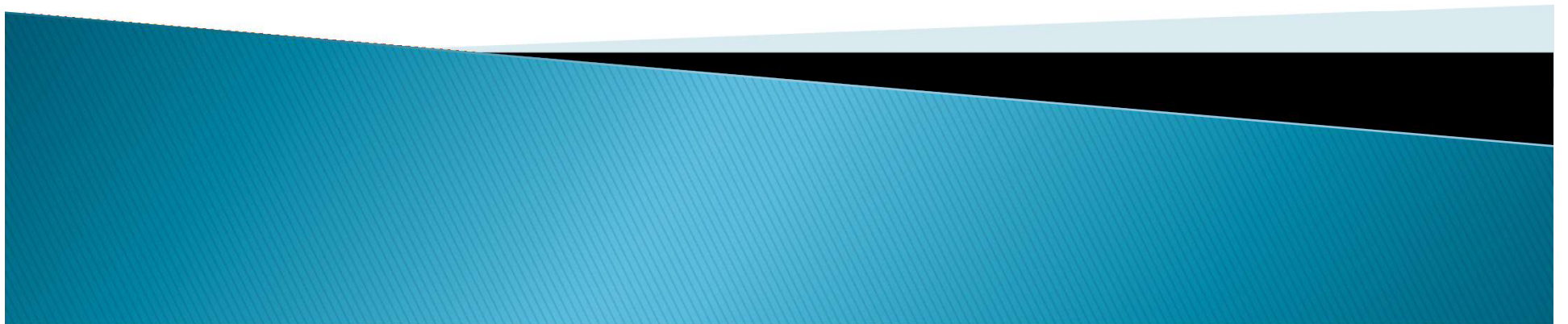# Data Mining in a nutshell

Nazerfard, Ehsan

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Data Mining

- **Data mining** is an area that has taken much of its inspiration and techniques from machine learning (and some, also, from statistics), but is put to different *ends*.

  Data mining is carried out by a *person*, in a specific situation, on a particular data set, with a goal in mind.

  *Note: Quite often, the data set is *massive.*

Data Mining (cont.)

Usually, the goal is either to discover some preliminary insights in an area where there really was little knowledge beforehand, or to be able to predict future observations accurately.

Moreover, data mining procedures could be either 'unsupervised' or 'supervised'.

*Note: The goal is generally *not* to develop a more sophisticated understanding of the underlying data generating process.
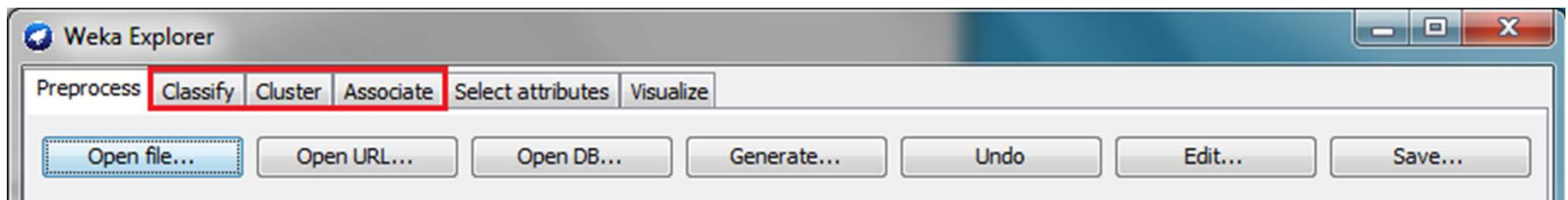
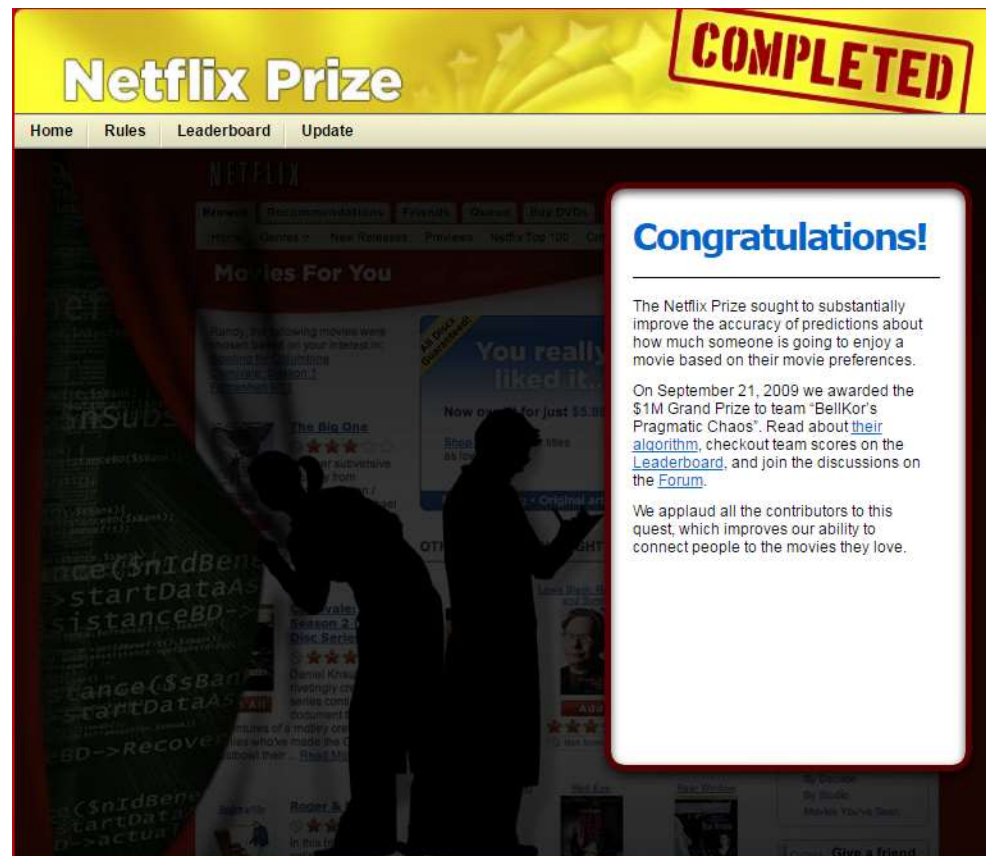# What is Data Mining?

What is Data Mining?

Weka Featrues

Netflix Prize

[The Winner](#)

DM Scholars

Trevor Hastie
Professor of Statistics, Stanford University
Verified email at stanford.edu
Cited by 148166
Statistical learning and modeling   data mining   machine learning

Jiawei Han
Abel Bliss Professor of Computer Science, University of Illinois
Verified email at cs.uiuc.edu
Cited by 133869
data mining   database systems   data warehousing   information networks

Jeffrey Ullman
Professor of Computer Science, Stanford University
Verified email at stanford.edu
Cited by 114190
Database Systems   Data Mining

Rakesh Agrawal
Technical Fellow, Microsoft Research
Verified email at microsoft.com
Cited by 106322
Data Mining   Web Search   Education   Privacy

Kim Minwoo
University of Central Arkansas
Cited by 85381
AI   Data Mining   Algorithm   Bioinformatics

DM Scholars (cont.)

Philip S. Yu
Professor of Computer Science, University of Illinons at Chicago
Verified email at cs.uic.edu
Cited by 83982

Data mining   Database   Privacy

John Canny
University of California, Berkeley
Verified email at cs.berkeley.edu
Cited by 77853

HCI   Ubicomp   ICTD   Data Mining   Health Technologies

Vipin Kumar
University of Minnesota
Verified email at cs.umn.edu
Cited by 77354

Data mining   parallel computing   bioinformatics   climate informatics   graph partitioning

Chih-Jen Lin
Professor of Computer Science, National Taiwan University
Verified email at csie.ntu.edu.tw
Cited by 70176

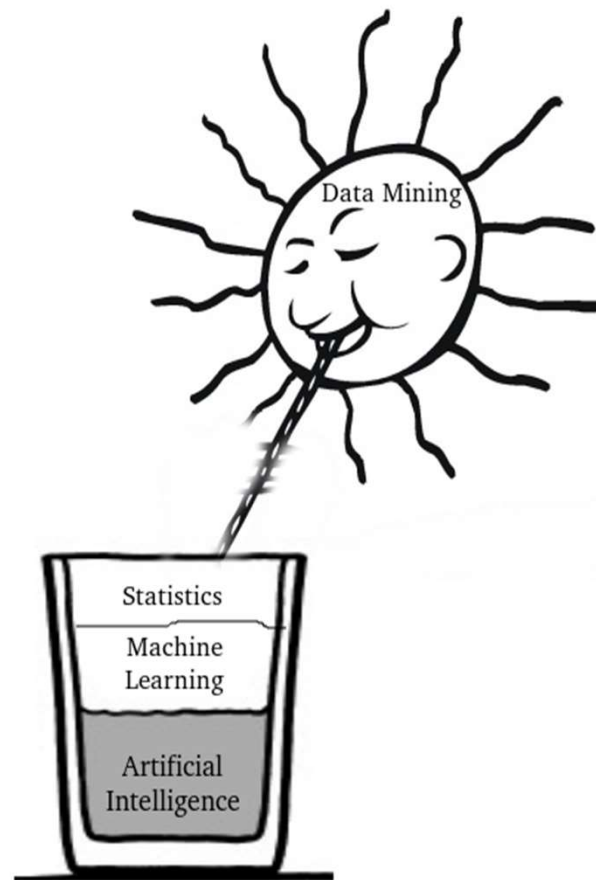Machine learning   Data Mining   Optimization   Artificial Intelligence

Jian Pei
Professor of Computing Science, Simon Fraser University
Verified email at cs.sfu.ca
Cited by 69456

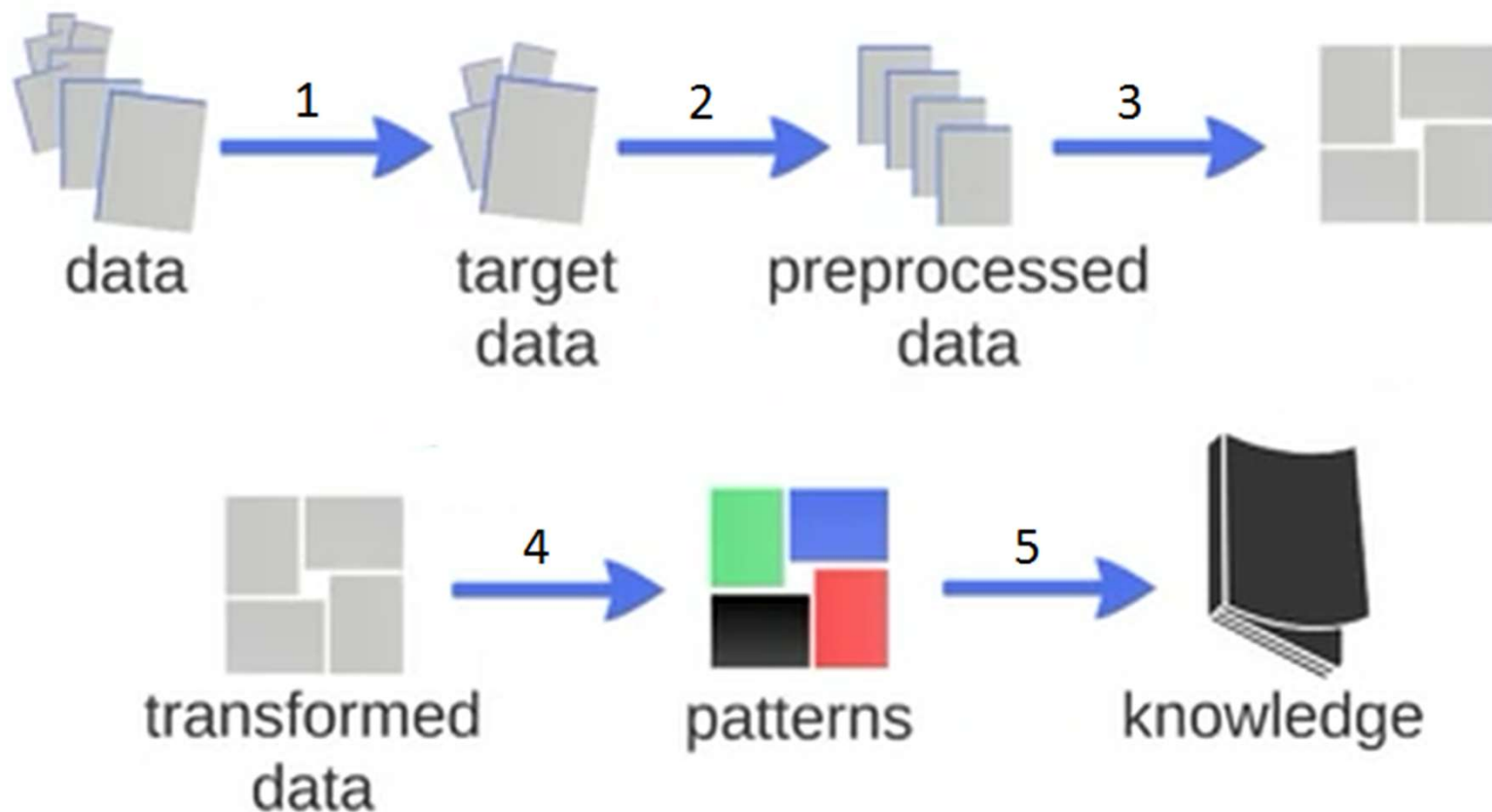Data mining   big data analytics   database systems   information retrieval

Related Fields of Study

Making friends with AI
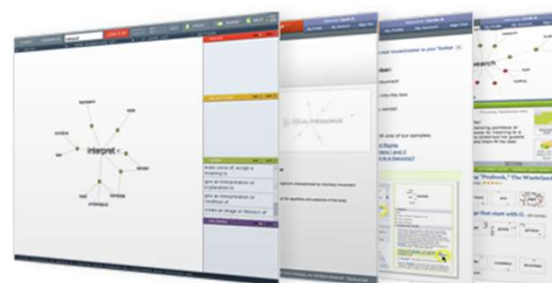
Data Mining Steps

□ مراحل عمومی روشهای دادهکاوی

data → 1 → target data → 2 → preprocessed data → 3 → transformed data → 4 → patterns → 5 → knowledge

Visualization

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