



Unsupervised Learning

• **Not a new variable, just a set of predictors (features) measured on a set of samples**

• Objective is more fuzzy:

-find groups of samples that behave similarly

- find features that behave similarly

find linear combinations of features with the most variation





• Difficult to know "how well" you're doing

Can be useful as a pre-processing step for supervised learning

# Unsupervised Learning

- No outcome variable, just a set of predictors (features) measured on a set of samples
- Objective is more fuzzy:
  - find groups of samples that behave similarly
  - find features that behave similarly
  - find linear combinations of features with the most variation
  - ⋮
- Difficult to know “how well” your are doing
- Can be useful as a pre-processing step for supervised learning

# The Netflix Prize