



Graphs in Machine Learning

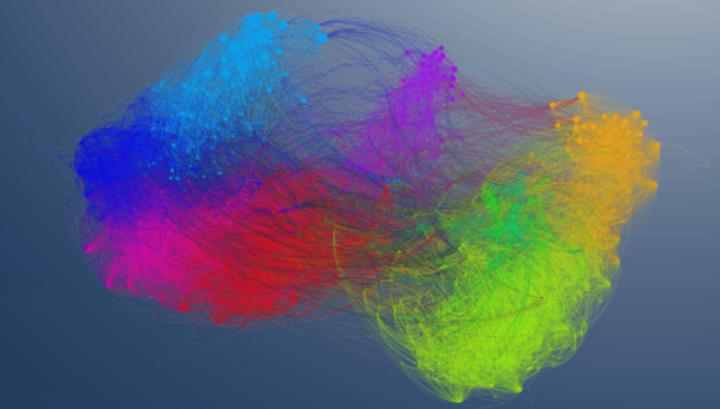
Similarity Graphs Introduction

From Data to Graphs

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Partially based on material by: Andreas Krause,
Branislav Kveton, Michael Kearns



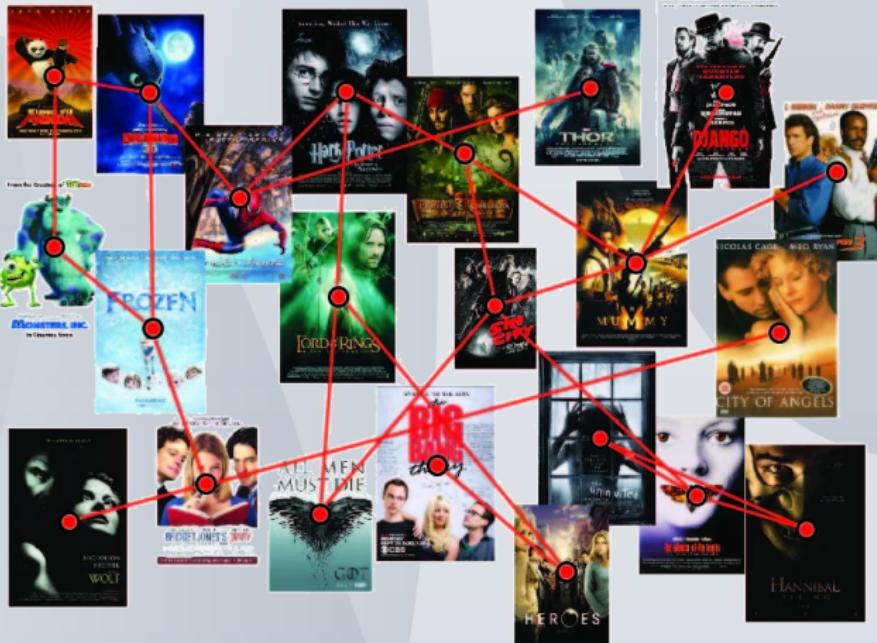
Graphs from similarity networks

graph is not naturally given



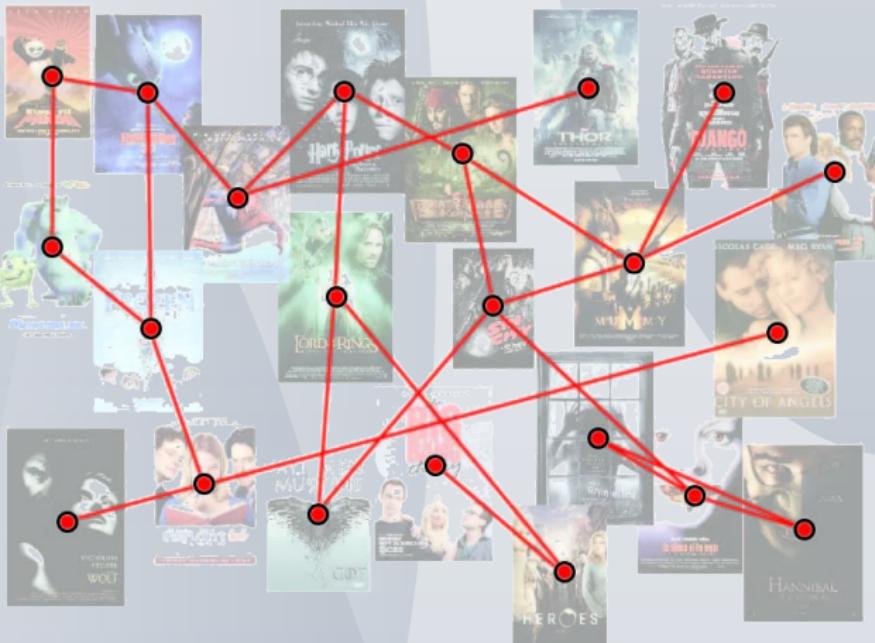
Graphs from similarity networks

but we can construct it



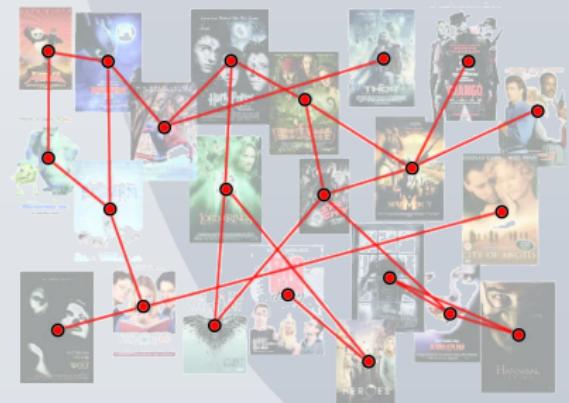
Graphs from similarity networks

and use it as an abstraction



Graphs from similarity networks

- vision
- audio
- text
- typical ML tasks
 - semi-supervised learning
 - spectral clustering



Movie similarity

Similarity Graphs

Input: $x_1, x_2, x_3, \dots, x_N$

- raw data
- flat data
- vectorial data



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`https://misovalko.github.io/mva-ml-graphs.html`