SOFT-SUBSPACE CLUSTERING ON A HIGH-DIMENSIONAL MUSICAL DATASET

Emil Juzovitski June 26, 2019

Master Thesis Presentation

Examiner: Pawel Herman Supervisor: Johan Gustavsson

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What is clustering analysis about?

Finding clusters (groups) in a set of data objects

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Finding clusters (groups) in a set of data objects, with feature similar data objects partitioned into the same cluster

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Finding clusters (groups) in a set of data objects, with feature similar data objects partitioned into the same cluster, and feature dissimilar data objects partitioned into different cluster.

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Clustering analysis

Finding clusters (groups) in a set of data objects, based on similarity

Example Tasks:

- Fitting products into different aisles in a grocery store
- · Grouping distributors based on the products they sell

Clustering analysis

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How do we measure similarity?

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$$D(X_1, X_2) = \sum_{j=1}^{m} d(x_{1j}, x_{2j})$$

AN ALGORITHM FOR FINDING PRIMES NUMBERS.

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int main (void)
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  std::vector<bool> is_prime (100, true);
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FEATURES

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- An object e.g. A shoe, can be represented by features such as brand (nike, adidas), style (sneaker, flip-flops, leather), and cost (\$)
- · brand is categorical
- cost is numerical

INTRODUCTION

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THIRD FRAME

Hello, world!

Example

Hello



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FOURTH FRAME

Hello, world!

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FOURTH FRAME

Hello, world!