**Kotonush: Understanding Concepts Based on Values behind Social Media**

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### Introduction

Ordering concepts from various perspectives is essential to make decisions in a daily life.

**Voting**

- Which brand of smartphone do you like?

**Task scheduling**

- How to schedule tasks to minimize the completion time?

**Choosing a restaurant**

- How is the food in this restaurant?

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### Research Question

Can we derive views on concept ordering in a specific demographics (e.g., men) or time periods from text in the domain?

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### Task Setting

- **a set of concepts**
  - + **an adjective**
  - + **domain info**

**Concepts ordered by attribute intensity**

- **Delicious**
- **Men**

We regard the ordering that maximizes averaged Spearman’s $p$ against human orderings as gold standard.

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### Kotonush

**Research Question**

- **Gold standard Examples**
  - **[Data for Gold-standard (Gathered by Crowdsourcing)]**
  - 53 Twitter users (male/female: 24/29, age: 20s ~ 60s)
  - **[attention points are highlighted]**

**Train & Test [Iwanari+, IJCAI-16]**

**Adjective & Concept independent classifier**

**Train**

- Gold

**Test**

- SVM

**Ranking SVM [Joachims ’02]**

- Generate a feature vector for each concept
- Learn a ranking svm to minimize the number of incorrect orderings of two items against gold

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### Gold-standard Examples

- **[Data for Gold-standard (Gathered by Crowdsourcing)]**
- 53 Twitter users (male/female: 24/29, age: 20s ~ 60s)
- **[attention points are highlighted]**

**Case Studies**

**[Data]**

- ~ 25 billion tweets
- Japanese

**Men like action movies much better than Disney movies but women don't like action movies so much**

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