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### Introduction

**Extractive Summarization System**  
- Extraction of a set of sentences in the source text
  - Preciseness is important for assembly minutes summarization
- Importance prediction using a machine learning
  - Supervised method usually shows better performance than unsupervised method

 **Objective**  
- **Automatic training data construction**
  - Hypothesis
    - An utterance with high similarity to a sentence in a summary is more important

 **Outline**  
- Training data construction
- Sentence extraction with trained model

### Training Data Construction

- Assignment of importance scores of utterances using a word similarity

### Evaluation of Similarity Measures

- There are many way to calculate similarity, such as cosine similarity and edit distance etc.
- Selection of the most suitable measure on this task
- Given corpus: 529 speeches (7,226 sentences)
- 477 speeches (6,551 sentences) for training data
- Evaluation of generated summaries of 52 speeches (675 sentences)

### Evaluation on Formal Run

**Our method**  
- w/ sentence compression
  - We applied sentence compression on the basis of simple rule
- w/o sentence compression

**ROUGE Scores**

<table>
<thead>
<tr>
<th>Similarity measure</th>
<th>Rouge N1</th>
<th>Edit distance</th>
<th>ROUGE-1 similarity score</th>
<th>Cosine similarity between sentence embedding (Word2vec)</th>
<th>Cosine similarity between sentence embedding (Doc2vec)</th>
<th>Average of all the similarity measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cosine similarity between bag-of-words</td>
<td>0.333</td>
<td>0.338</td>
<td>0.341</td>
<td>0.306</td>
<td>0.316</td>
<td>0.349</td>
</tr>
<tr>
<td>Edit distance</td>
<td>0.333</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROUGE-1 similarity score</td>
<td>0.341</td>
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**Participants Assessment**

- The method w/o the sentence compression outperformed OtherSysAve on all scores
- The formedness score of the method with sentence compression was **lower** than OtherSysAve

- **Our method was effective**
- **The improvement of the sentence compression step is important future work**