



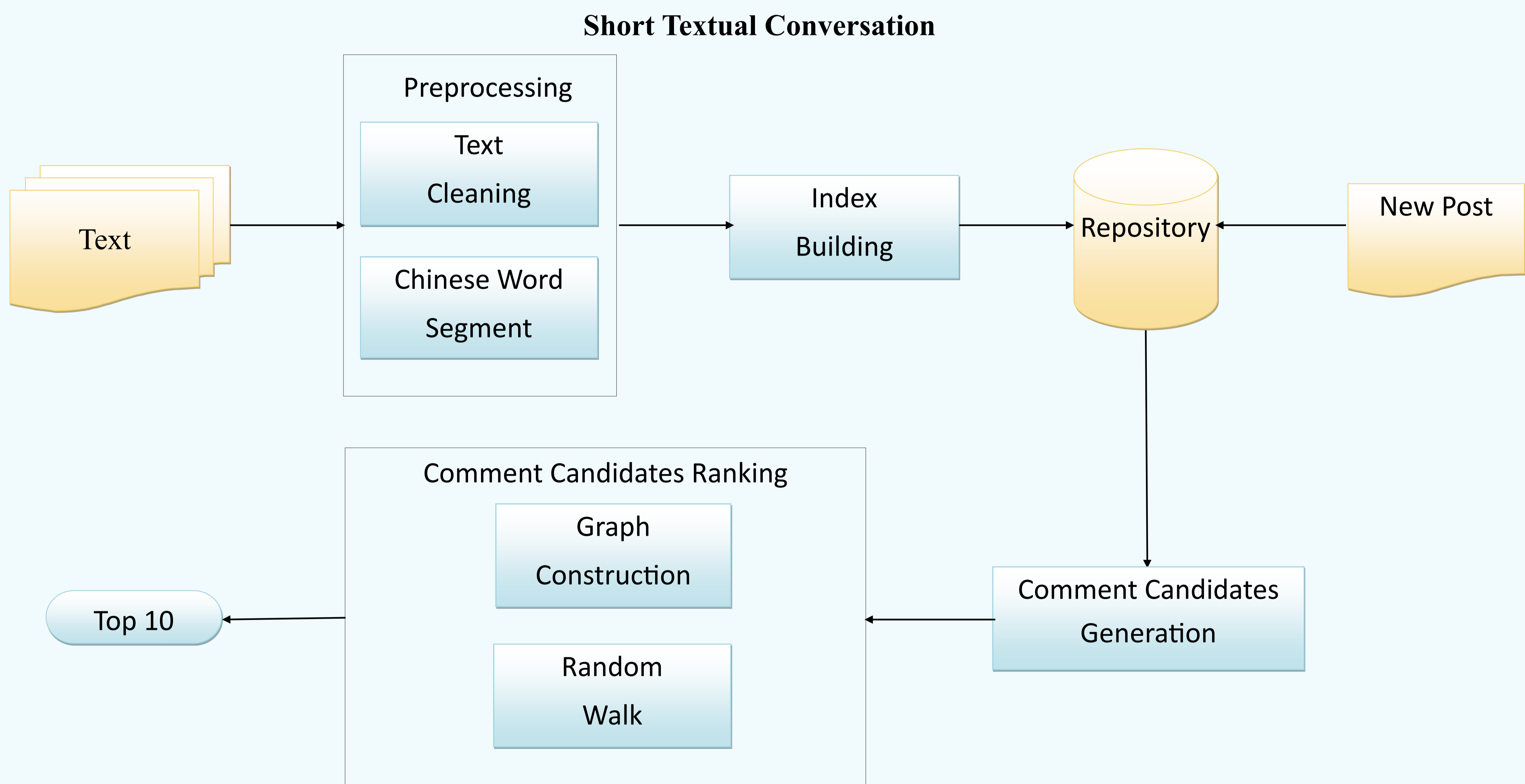
# Short Textual Conversation

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Natural Language Conversation is a long-standing goal of **AI** and **NLP**. Natural Language Conversation between human and computer is one of the most challenging AI problems, which involves language understanding, reasoning, and the use of common sense knowledge, while **Short Textual Conversation (STC)** has focused on short conversation from text. STC is one of the challenges and the first demanding of the Natural Language Conversation domain.

## How can we approach Short Textual Conversation?



### Short Textual Conversation

- **BUPTTeam Participation at NTCIR-12 Short Textual Conversation — 1st place**

Table. Evaluation Results

Run	nG@1	P+	nERR@10
BUPTTeam	0.3567	0.5082	0.4945

### Index Building

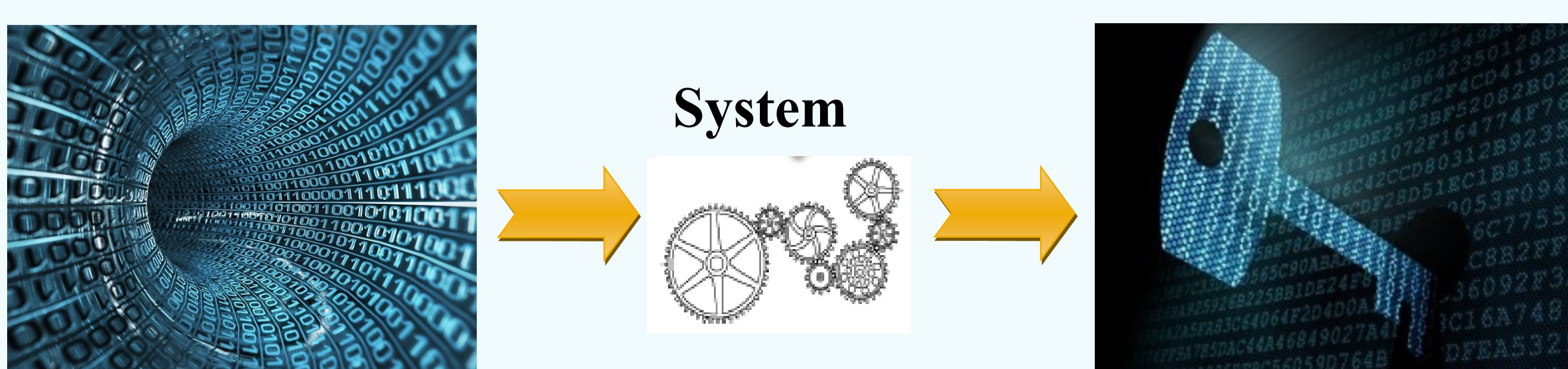
- The repository is huge so that we could not generate comment candidates quickly. To address the problem, we use Elasticsearch to build index of posts and comments.

### Comment Candidates Ranking

- To find the most appropriate comments for a new post, we use a referent graph-based approach for candidates ranking instead of directly based on the relevance score of comment candidates for a new post.

### Motivation

- Analyzing **big data** will become a key basis of data mining.
- **Natural Language Conversation** via **STC** is a possible technology to make conversation based on big data within tolerable elapsed times.



### Summary

- We use Elasticsearch to build search index and the random walk which is a graph-based method to do comment candidates ranking. The evaluation results show that our method significantly outperforms state-of-the-art STC task.

### Acknowledgments

- NTCIR-12 Organizers