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An easy-to-use evaluation framework for benchmarking entity recognition and disambiguation systems

Key words: Entity recognition and disambiguation (ERD); Evaluation framework; Information extraction

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Introduction

- There is some confusion over the performances of current ERD systems.
- This situation gives rise to the development of a framework to unify and facilitate the evaluation process.
- We introduce an evaluation framework for benchmarking ERD systems, which has already integrated several popular publicly available ERD systems, datasets, and evaluation metrics.

Proposed framework

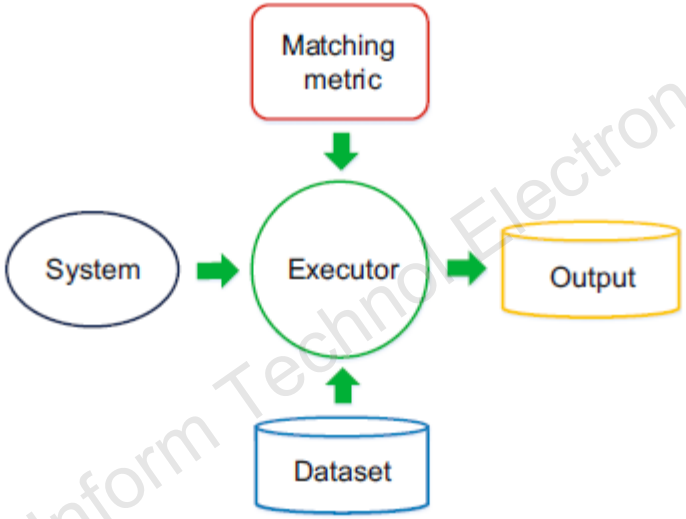

Fig. 1 Architecture of EUEF, which is modular in design and well extensible

Integrated systems and datasets

- Systems
  - Wikipeida Miner
  - Illinois Wikifier
  - Priorer
- Datasets
  - AIDA
  - MSNBC
  - ACE

Measurement results

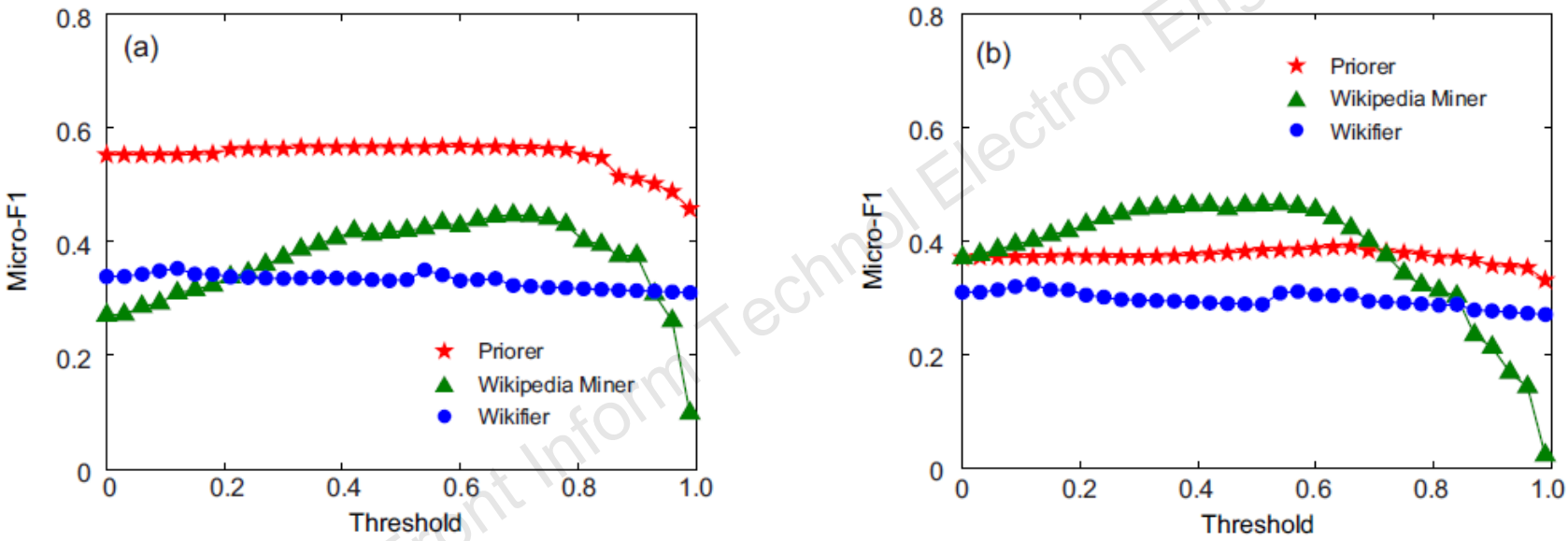

Fig. 2 Results on three ERD systems' performance in two datasets with different iterative thresholds: (a) MSNBC; (b) AQUAINT

Conclusions

- In this paper, we propose a framework EUEF, which aims at facilitating the evaluation process and giving fair comparison and detailed analysis of various ERD systems.

- With fair and exhaustive comparisons based on EUEF, it is more convenient to discover the advantages and disadvantages of various ERD systems.