

Home | Computational Linguistics | List of Issues | Volume 31 , No. 4 | Improving Machine Translation Performance by Exploiting Non-Parallel Corpora



Improving Machine Translation Performance by Exploiting Non-Parallel Corpora

[Dragos Stefan Munteanu](#) and [Daniel Marcu](#)

Posted Online March 13, 2006

<https://doi.org/10.1162/089120105775299168>

© 2006 Association for Computational Linguistics

Computational Linguistics
Volume 31 | Issue 4 | December 2005
p.477-504

Quarterly (March, June, September, December)

160pp. per issue

6 3/4 x 10

Founded: 1974

2018 Impact Factor: 1.319

2018 Google Scholar h5-index: 32

ISSN: 0891-2017

E-ISSN: 1530-9312

 **Download Options** 

Abstract Authors

We present a novel method for discovering parallel sentences in comparable, non-parallel corpora. We train a maximum entropy classifier that, given a pair of sentences, can reliably determine whether or not they are translations of each other. Using this approach, we extract parallel data from large Chinese, Arabic, and English non-parallel newspaper corpora. We evaluate the quality of the extracted data by showing that it improves the performance of a state-of-the-art statistical machine translation system. We also show

Journal

Resources

[Editorial Info](#)

[Abstracting and Indexing](#)

[Release Schedule](#)

[Advertising Info](#)

Author


Resources

Submission Guidelines
Publication Agreement
Author Reprints

that a good-quality MT system can be built from scratch by starting with a very small parallel corpus (100,000 words) and exploiting a large non-parallel corpus. Thus, our method can be applied with great benefit to language pairs for which only scarce resources are available.

Reader Resources

Rights and Permissions
Most Read
Most Cited


More About Computational Linguistics 

Metrics 



86 Total citations
14 Recent citations
.....
17 Field Citation Ratio
n/a Relative Citation Ratio


Open Access 


 Computational Linguistics Computational Linguistics is Open Access. All content is freely available in electronic format (Full text HTML, PDF, and PDF Plus) to readers across the globe. All


Forthcoming

Most Read

[See More](#)

 **Lexicon-Based Methods for Sentiment Analysis** (14087 times)
Maite Taboada et al.
Computational Linguistics
Volume: 37, Issue: 2, pp. 267-307


 **Computational Linguistics and Deep Learning** (10542 times)
Christopher D. Manning
Computational Linguistics
Volume: 41, Issue: 4, pp. 701-707


 **Near-Synonymy and Lexical Choice** (3675 times)
Philip Edmonds et al.
Computational Linguistics
Volume: 28, Issue: 2, pp. 105-144


(Note that the Most Read numbers are based on the number of full text downloads over the last 12 months.)

Most Cited

[See More](#)



 **Lexicon-Based Methods for Sentiment Analysis** (436 times)
Maite Taboada et al.
Computational Linguistics
Volume: 37, Issue: 2, pp. 267-307



 **A Systematic Comparison of Various Statistical Alignment Models** (174 times)
Franz Josef Och et al.
Computational Linguistics
Volume: 29, Issue: 1, pp. 19-51


 **Opinion Word Expansion and Target Extraction through Double Propagation** (147 times)
Guang Qiu et al.
Computational Linguistics
Volume: 37, Issue: 1, pp. 9-27

(Note that the Most Cited numbers are based on Crossref's [Cited-by service](#) and reflect citation information for the past 24 months.)

Download Options

Favorite  Sign up for Alerts 

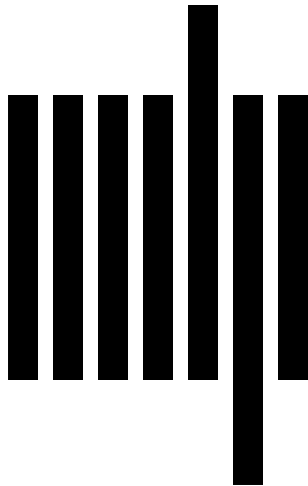
Download Citation  RSS TOC 

RSS Citation  Submit your article

articles are published under a [CC BY-NC-ND 4.0 license](#). For more information on allowed uses, please view the [CC license](#).

[Support OA at MITP](#)

[Support OA at MITP](#)



Journals

Books

US

One Rogers Street
Cambridge MA 02142-1209

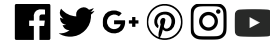
Terms &
Conditions

UK

Suite 2, 1 Duchess
Street London, W1W
6AN, UK

Privacy
Statement

Connect



Contact Us

© 2018 The MIT Press
Technology Partner:
[Atypon Systems, Inc.](#)
[CrossRef Member](#)
[COUNTER Member](#)
The MIT Press
colophon is registered
in the U.S. Patent and
Trademark Office.
[Site Help](#)