



The MIT Press

Journals

[Sign In / Register](#)
[Books](#)
[Journals](#)
[Digital](#)
[Resources](#)
[About](#)
[Contact](#)


Home | Computational Linguistics | List Article navigation
of Issues | Volume 30 , No. 4 |
Intricacies of Collins' Parsing Model



Intricacies of Collins' Parsing Model

Daniel M. Bikel

Posted Online March 13, 2006

<https://doi.org/10.1162/0891201042544929>

© 2004 Association for Computational Linguistics

Computational Linguistics
Volume 30 | Issue 4 | December 2004
p.479-511

 **Download Options** >

Abstract Authors

This article documents a large set of heretofore unpublished details Collins used in his parser, such that, along with Collins' (1999) thesis, this article contains all information necessary to duplicate Collins' benchmark results. Indeed, these as-yet-unpublished details account for an 11% relative increase in error from an implementation including all details to a clean-room implementation of Collins' model. We also show a cleaner and equally well-performing method for the handling of punctuation and conjunction and reveal certain other probabilistic oddities about Collins' parser. We not only analyze the effect of the unpublished details, but also reanalyze the effect of certain well-known

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

Journal Resources

[Editorial Info](#)

[Abstracting and
Indexing](#)

[Release Schedule](#)


[Advertising Info](#)

Author Resources

- Submission Guidelines
- Publication Agreement
- Author Reprints

Reader Resources

- Rights and Permissions
- Most Read
- Most Cited

More About Computational Linguistics 

Metrics 



66 Total

citations

5 Recent

citations

15 Field Citation

Ratio

n/a Relative

Citation Ratio

Open Access 




Computational Linguistics Computational Linguistics is Open Access. All content is freely available in


details, revealing that bilexical dependencies are barely used by the model and that head choice is not nearly as important to overall parsing performance as once thought. Finally, we perform experiments that show that the true discriminative power of lexicalization appears to lie in the fact that unlexicalized syntactic structures are generated conditioning on the headword and its part of speech.


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

Sign up for

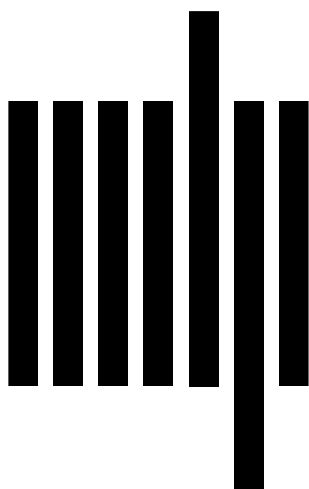
- [Favorite](#)
-  [Alerts](#)
- 

electronic format (Full text HTML, PDF, and PDF Plus) to readers across the globe. All 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](#)

Download Citation  [RSS TOC](#) 

[RSS Citation](#)  [Submit your article](#)

[Support OA at MITP](#) 



[Journals](#)

[Terms & Conditions](#)

[Privacy Statement](#)

[Contact Us](#)

[Books](#)

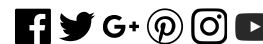
[US](#)

[UK](#)

[Connect](#)

One Rogers Street
Cambridge MA
02142-1209

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



© 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](#)