



ISSN
1351-3249

NATURAL LANGUAGE ENGINEERING

Edited by
Ruslan Mitkov
John Tait
Branimir K. Boguraev

VOLUME 23 PART 2 MARCH 2017

CAMBRIDGE
UNIVERSITY PRESS

Natural Language Engineering meets the needs of professionals and researchers working in all areas of computerised language processing, whether from the perspective of theoretical or descriptive linguistics, lexicology, computer science or engineering. Its aim is to bridge the gap between traditional computational linguistics research and the implementation of practical applications with potential real-world use. As well as publishing research articles on a broad range of topics - from text analysis, machine translation, information retrieval and speech analysis and generation to integrated systems and multi modal interfaces - it also publishes special issues on specific areas and technologies within these topics, an industry watch column, an emerging trends column and book reviews.

EDITORS

Ruslan Mitkov (Executive Editor), University of Wolverhampton, UK. email: R.Mitkov@wlv.ac.uk

John I. Tait, johntait.net Ltd., UK. email: john@johntait.net

Branimir K. Boguraev, IBM Thomas J. Watson Research Center, USA. email: bran@us.ibm.com

ASSOCIATE EDITORS

Diana Inkpen, University of Ottawa, Canada. email: Diana.Inkpen@uottawa.ca

Natalia Konstantinova, First Utility, UK. email: N.Konstantinova@wlv.ac.uk

BOOK REVIEW EDITOR

Diana Maynard, University of Sheffield, UK. email: d.maynard@sheffield.ac.uk

INDUSTRY WATCH EDITOR

Robert Dale, Arria NLG, Australia. email: robert.dale@arria.com

EMERGING TRENDS EDITOR

Kenneth Church, IBM, NY, USA. email: kwchurch@us.ibm.com

FOUNDING EDITOR

Roberto Garigliano, SenseGraph Ltd., UK.

EDITORIAL BOARD

Kevin Bretonnel Cohen, University of Colorado, USA

Mona T. Diab, George Washington University, USA

Gregory Grefenstette, INRIA, France

Tracy Holloway King, A9 Amazon, USA

Sandra Kuebler, University of Indiana, USA

Lori Lamel, LIMSI, France

Suresh Manandhar, University of York, UK

Alessandro Moschitti, University of Trento, Italy

Preslav Nakov, Qatar Computing Research Institute, HBKU, Qatar

Vivi Nastase, University of Heidelberg, Germany

Roberto Navigli, University of Roma 'La Sapienza', Italy

Kemal Oflazer, Sabanci University, Turkey

Constantin Orasan, University of Wolverhampton, UK

Khalil Sima'an, University of Amsterdam, The Netherlands

Tomek Strzalkowski, University at Albany, USA

Idan Szpektor, Yahoo Labs, Israel

Maite Taboada, Simon Fraser University, Canada

Hwee Tou Ng, National University of Singapore, Singapore

Alfonso Ureña, University of Jaén, Spain

Bonnie Webber, University of Edinburgh, UK