Computational Linguistics

Articles		
The Repair of Speech Act Misunderstandings by Abductive Inference	Susan W. McRoy and Graeme Hirst	435
Tree Insertion Grammar: A Cubic-Time, Parsable Fotmalism that Lexicalizes Context-Free Grammar without Changing the Trees Produced	Yves Schabes and Richard C. Waters	479
Modularity and Information Content Classes in Principle-Based Parsing	Paola Merlo	515
Transformation-Based Error-Driven Learning and Natural Language Processing: A Case Study in Part-of-Speech Tagging	Eric Brill	543
Squibs and Discussions		
Developing a Nonsymbolic Phonetic Notation for Speech Synthesis	Andrew Cohen	567
Book Reviews		
Machine translation: An introductory guide by D. Arnold, L. Balkan, R. Lee Humphreys, S. Meijer, and L. Sadler	Reviewed by Susanne Heizmann	577
The creative process: A computer model of storytelling and creativity by Scott R. Turner	Reviewed by Keith Oatley	579
Compositional translation by M. T. Rosetta	Reviewed by Bonnie J. Dorr	582
parallel memory-based approach by Hiroaki Kitano	Reviewed by Nigel Ward	590
Computational lexical semantics by Patrick Saint-Dizier and Evelyne Viegas	Reviewed by Paul Deane	593
Computational phonology: A constraint-based approach by Steven Bird	Reviewed by Deirdre Wheeler and Bob Carpenter	598
Briefly Noted		604
Books Received		607
Index to Volume 21		610



Editor 1993-

Julia Hirschberg
AT&T Bell Laboratories
600 Mountain Avenue, 2C-409
Murray Hill, NJ 07974, USA
(+1 908) 582-7496
acl@research.att.com

Associate Editor

Robert C. Berwick Massachusetts Institute of Technology Artificial Intelligence Laboratory Cambridge, MA 02139, USA (+1 617) 253-8918 berwick@ai.mit.edu

Book Review Editor

Graeme Hirst University of Toronto Computer Science Department Toronto, CANADA M5S 1A4 (+1 416) 978-8747 gh@cs.toronto.edu

The FINITE STRING Editor

Ralph M. Weischedel BBN Systems & Technologies 10 Moulton Street Cambridge, MA 02138, USA (+1 617) 873-3496 weischedel@bbn.com

Squibs and Discussions Co-Editors

James Pustejovsky Brandeis University Computer Science, Ford Hall Waltham, MA 02254, USA (+1 617) 736-2709 jamesp@cs.brandeis.edu

Robert J. P. Ingria BBN Systems & Technologies 10 Moulton Street Cambridge, MA 02138, USA (+1 617) 873-3582 ingria@bbn.com

Editorial Board Members 1993-95:

Steven Bird, University of Edinburgh
Bernard Lang, INRIA
David D. Lewis, AT&T Bell Laboratories
Kathleen F. McCoy, University of Delaware
Rebecca L. Passonneau, Columbia University
Graham Russell, ISSCO
Yves Schabes, Mitsubishi Electric Research Laboratory

1994-96:

Hiyan Alshawi, AT&T Bell Laboratories
Mark Johnson, Brown University
John Lafferty, Carnegie Mellon University
Lori Levin, Carnegie Mellon University
Johanna Moore, University of Pittsburgh
Stephen Pulman, SRI Cambridge/Cambridge University
Mats Rooth, Universität Stuttgart
Keh-Yih Su, National Tsing Hua University
David Weir, University of Sussex

1995-97:

Anne Abeille, Universite Paris VII
Patrick Blackburn, Universität des Saarlandes
Susan Brennan, SUNY Stony Brook
Matt Crocker, University of Edinburgh
Ido Dagan, Bar Ilan University
Masaaki Nagata, NTT Information and
Communication Systems Laboratories
Megumi Kameyama, SRI International
Ed Stabler, UCLA
Kees van Deemter, Institute for Perception Research
Gregory Ward, Northwestern University
Pete Whitelock, Sharp Laboratories of Europe Ltd.

Computational Linguistics

Articles		
The Repair of Speech Act Misunderstandings by Abductive Inference	Susan W. McRoy and Graeme Hirst	435
Tree Insertion Grammar: A Cubic-Time, Parsable Formalism that Lexicalizes Context-Free Grammar without Changing the Trees Produced	Yves Schabes and Richard C. Waters	479
Modularity and Information Content Classes in Principle-Based Parsing	Paola Merlo	515
Transformation-Based Error-Driven Learning and Natural Language Processing: A Case Study in Part-of-Speech Tagging	Eric Brill	543
Squibs and Discussions		
Developing a Nonsymbolic Phonetic Notation for Speech Synthesis	Andrew Cohen	567
Book Reviews		
Machine translation: An introductory guide by D. Arnold, L. Balkan, R. Lee Humphreys, S. Meijer, and L. Sadler	Reviewed by Susanne Heizmann	577
The creative process: A computer model of storytelling and creativity by Scott R. Turner	Reviewéd by Keith Oatley	579
Compositional translation by M. T. Rosetta	Reviewed by Bonnie J. Dorr	582
Speech-to-speech translation: A massively parallel memory-based approach by Hiroaki Kitano	Reviewed by Nigel Ward	590
Computational lexical semantics by Patrick Saint-Dizier and Evelyne Viegas	Reviewed by Paul Deane	593
Computational phonology: A constraint-based approach by Steven Bird	Reviewed by Deirdre Wheeler and Bob Carpenter	598
Briefly Noted		604
Books Received		607
Index to Volume 21		610

Copyright ©1995 by the Association for Computational Linguistics. Permission to photocopy articles for internal or personal use, or the internal or personal use of specific clients, is granted by the copyright owner for users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the fee of \$3.00 per article-copy is paid directly to CCC, 222 Rosewood Drive, Danvers, MA 01923. The fee code for users of the Transactional Reporting Service is 0891-2017/95 \$3.00. For those organizations that have been granted a photocopy license with CCC, a separate system of payment has been arranged. Such permission requests and other permission inquiries should be addressed to the Managing Editor at the address given on the inside front cover of this issue.

Computational Linguistics is abstracted and/or indexed in the following publications: Annual Review of Information Science and Technology, Computer Abstracts, Computing Reviews, Current Contents: Social and Behavioral Sciences, Engineering Index, Knowledge Engineering Review, Language and Language Behavior Abstracts, Linguistic Abstracts, Linguistic Bibliography, Science Abstracts (INSPEC Section C), and Social Sciences Citation Index.

Volume 14 and subsequent volumes of *Computational Linguistics* are available on microfilm through University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106, USA.

Send advertising and mailing list inquiries to Marketing Manager, MIT Press Journals, 55 Hayward Street, Cambridge, MA 02142; (617) 253-2866; e-mail: journals-info@mit.edu.

Individual Subscriptions to Computational *Linguistics* are available only with membership in the Association for Computational Linguistics (ACL). Annual Membership Dues are as follows: regular, \$50.00; student — taking a full-time program of courses and not earning a regular income, \$30.00; retired, \$30.00; joint — for couples receiving one subscription, \$60.00. A membership application together with an order form for back issues and conference proceedings is included at the end of this issue. Send membership applications and address changes to Priscilla Rasmussen, Association for Computational Linguistics (ACL), P.O. Box 6090, Somerset, NJ 08875, USA. However, note that it is also possible to pay by credit card (both by e-mail and by postal mail) and through banks in Switzerland and Japan.

Institutional Subscriptions are \$98.00. Outside the U.S. add \$16.00 postage handling. Canadian subscribers also add 7% GST. Single copies of current and back issues are \$25.00. Outside U.S. add \$5.00 per issue for postage and handling. Canadians add additional 7% GST. Send institutional subscription orders and address changes to MIT Press Journals, 55 Hayward Street, Cambridge, MA 02142; (617) 253-2889; e-mail: journals-orders@mit.edu. Claims for missing issues will be honored free of charge if made within three months after the publication date of the issue. Prices subject to change without notice. Institutions should order back issues before 1988 and all proceedings from the ACL at the address above.