



Computational Linguistics

Formerly the American Journal of Computational Linguistics

Volume 11, Numbers 2-3

April-September 1985

SECOND OF TWO SPECIAL ISSUES ON MACHINE TRANSLATION

Guest Editor: Jonathan Slocum

The Japanese Government Project for Machine Translation	91
Makoto Nagao, Jun-ichi Tsujii, and Jun-ichi Nakamura	
The LRC Machine Translation System	111
Winfield S. Bennett and Jonathan Slocum	
SPANAM and ENGSPAN: Machine Translation at the Pan American Health Organization	122
Muriel Vasconcellos and Marjorie Leon	
ASCOF -- A Modular Multilevel System for French-German Translation	137
Axel Biewer, Christian Feneyrol, Johannes Ritzke, Erwin Stegentritt	
EUROTRA: A Multilingual System under Development	155
Rod Johnson, Maghi King, and Louis des Tombe	
A Machine(-aided) Translation Bibliography	170
<i>Book Reviews</i>	
Affix Positions and Cooccurrences: The PARADIGM Program	184
<i>Reviewed by</i> R. L. Brandson	
Elements of Mathematical Linguistics	185
<i>Reviewed by</i> Geoffrey Sampson	
Automatic Semantic Interpretation: A Computer Model of Understanding Natural Language	185
<i>Reviewed by</i> Graeme Hirst	
<i>The FINITE STRING Newsletter</i>	
Calls for Papers	187
Conference Announcements	188
Conference Programs	189
Announcements	190
Abstracts of Current Literature	191
<i>Microfiche (CL Mf. 101 and 102)</i>	

Computational Linguistics

Formerly the American Journal of Computational Linguistics

Published quarterly by the *Association for Computational Linguistics*.

(ISSN 0362-613X)

Editor	James F. Allen <i>Computer Science Department University of Rochester Rochester, NY 14627 USA (716) 275-5288; ACL@ROCHESTER.ARPA</i>
Managing Editor	Donald E. Walker <i>Bell Communications Research 445 South Street, MRE 2A379 Morristown, NJ 07960 USA (201) 829-4312; WALKER.MOUTON@CSNET-RELAY.ARPA</i>
Associate Editor	Michael C. McCord <i>IBM Thomas J. Watson Research Center P.O. Box 218 Yorktown Heights, NY 10598 USA (914) 945-1308; MCCORD.YKTVMX.IBM@CSNET-RELAY.ARPA</i>
Book Review Editor	Graeme Hirst <i>Department of Computer Science University of Toronto Toronto, Canada M5S 1A4</i>
The FINITE STRING Editor	Ralph M. Weischedel <i>Bolt Beranek and Newman Inc. 10 Moulton Street Cambridge, MA 02238 USA (617) 491-1850; WEISCHEDEL@BBNG.ARPA</i>
Production Editor	Cay Dietrich <i>IBM Thomas J. Watson Research Center (914) 945-2947; AJCL.YKTVMV.IBM@CSNET-RELAY.ARPA</i>
Editorial Board Members	
1983-85:	Madeleine Bates, <i>Bolt Beranek and Newman</i> Alan Biermann, <i>Duke University</i> Beatrice T. Oshika, <i>System Development Corporation</i> D. Terrence Langendoen, <i>CUNY Graduate Center</i> Lenhart K. Schubert, <i>University of Alberta</i>
1984-86:	Lauri J. Karttunen, <i>SRI International</i> Richard I. Kittredge, <i>Université de Montreal</i> Gerald Gazdar, <i>University of Sussex</i> David J. Israel, <i>Bolt Beranek and Newman</i> William C. Mann, <i>USC/Information Systems Institute</i> Wolfgang Wahlster, <i>Universität Hamburg</i>
1985-87:	Robert Berwick, <i>Massachusetts Institute of Technology</i> Harry Bunt, <i>Tilburg University</i> Anna Sagvall Hein, <i>Uppsala University</i> Kathleen McKeown, <i>Columbia University</i> Fernando Pereira, <i>SRI International</i> Jun-ichi Tsujii, <i>Kyoto University</i>

Copyright © 1985 by the *Association for Computational Linguistics*. The code and copyright notice appearing at the bottom of the first page of an article in this journal indicate the copyright owner's consent that a single copy of the article may be made for personal use. Any copier must pay for copying beyond that permitted by Sections 107 and 108 of the U.S. Copyright Law. The per-copy fee for each article appears after the dollar sign and is to be paid through the Copyright Clearance Center, Inc. This consent does not apply to other kinds of copying, such as copying for general distribution, for advertising and promotional purposes, for creating new collective works, or for resale. Such permission requests and other permission inquiries should be addressed to the **Managing Editor** at the address given above.

Subscriptions to CL are available only through membership in the *ACL*. Each subscription includes both hardcopy and microfiche versions of the journal.

Back issues of the *AJCL* may be ordered at annual rates of \$15 for orders from personal members, \$30 from institutional members. The first five volumes (1974-1978) are available only on microfiche; add \$3 for first class mailing in North America; \$6 for air printed mailing overseas. Volumes 6-9 (1980-1983) are available in both hard-copy and microfiche form; add \$6 for first class, \$12 for air printed mail. The *AJCL* was not published during 1979.

Address changes should be sent to **CL's Managing Editor**.

Annual dues are \$15 for personal and \$30 for institutional memberships. A joint membership for couples that provides one subscription is available for \$20. The dues payment includes bulk or surface mailing fees. First class mailing is available in North America for an additional \$6; air printed mailing is available overseas for an additional \$12.

Payments for dues or back issues should be made payable to the *Association for Computational Linguistics* (or *ACL*). Payments sent to the *ACL Secretary-Treasurer* should be payable in US dollars.

Payments from people in Europe or with Swiss accounts should be sent to the European Chapter Treasurer and can be in Swiss francs, by personal checks in the currency of that country, or by a banker's draft that credits account 141.880.LAV at the Union Bank of Switzerland, 8 rue de Rhone, CH-1211 Geneva 11, SWITZERLAND. European residents can get information on currency conversion values from the European Chapter Secretary.

In Japan, dues payments may be made to Dai-ichi Kangyo Bank, Hyakumanben Branch; Ordinary Deposit, 476-1319944; Name Keisangengogakkai Kaihi Nagao Makato. Send the dues statement *and* a copy of the bank transfer to the *ACL Secretary-Treasurer* (address on back cover). A copy of the bank transfer *only* is sent to Professor Nagao, Electrical Engineering, Kyoto University, Yoshida, Sakyo, Kyoto, JAPAN.