

2006



COLING • ACL

---

# COLING • ACL 2006

---

MLRI'06  
Multilingual Language Resources  
and Interoperability

Proceedings of the Workshop

Chairs:  
Andreas Witt, Gilles Sérasset, Susan Armstrong,  
Jim Breen, Ulrich Heid and Felix Sasaki

23 July 2006  
Sydney, Australia

---

Production and Manufacturing by  
*BPA Digital*  
*11 Evans St*  
*Burwood VIC 3125*  
*AUSTRALIA*

©2006 The Association for Computational Linguistics

Order copies of this and other ACL proceedings from:

Association for Computational Linguistics (ACL)  
209 N. Eighth Street  
Stroudsburg, PA 18360  
USA  
Tel: +1-570-476-8006  
Fax: +1-570-476-0860  
[acl@aclweb.org](mailto:acl@aclweb.org)

ISBN 1-932432-82-5

## Table of Contents

Preface .....	v
Organizers .....	vii
Workshop Program .....	ix
<i>Lexical Markup Framework (LMF) for NLP Multilingual Resources</i> Gil Francopoulo, Nuria Bel, Monte George, Nicoletta Calzolari, Monica Monachini, Mandy Pet and Claudia Soria .....	1
<i>The Role of Lexical Resources in CJK Natural Language Processing</i> Jack Halpern .....	9
<i>Towards Agent-based Cross-Lingual Interoperability of Distributed Lexical Resources</i> Claudia Soria, Maurizio Tesconi, Andrea Marchetti, Francesca Bertagna, Monica Monachini, Chu-Ren Huang and Nicoletta Calzolari .....	17
<i>The LexALP Information System: Term Bank and Corpus for Multilingual Legal Terminology Consolidated</i> Verena Lyding, Elena Chiocchetti, Gilles Sérasset and Francis Brunet-Manquat .....	25
<i>The Development of a Multilingual Collocation Dictionary</i> Sylviane Cardey, Rosita Chan and Peter Greenfield .....	32
<i>Multilingual Collocation Extraction: Issues and Solutions</i> Violeta Seretan and Eric Wehrli .....	40
<i>Structural Properties of Lexical Systems: Monolingual and Multilingual Perspectives</i> Alain Polguère .....	50
<i>A Fast and Accurate Method for Detecting English-Japanese Parallel Texts</i> Ken'ichi Fukushima, Kenjiro Taura and Takashi Chikayama .....	60
<i>Evaluation of the Bible as a Resource for Cross-Language Information Retrieval</i> Peter A. Chew, Steve J. Verzi, Travis L. Bauer and Jonathan T. McClain .....	68
Author Index .....	75



## Preface

In an ever-expanding information society, many language processing systems are now facing the “multilingual challenge”. Language resources, such as dictionaries, thesauri and wordnets, ontologies etc., as well as annotated corpora play an important role for the development, deployment, maintenance and exploitation of language processing systems.

Much work on architectures for multilingual language resources, on recommendations of best practice for creating, representing, maintaining and upscaling such resources has been done in the 1990s, but since then, most efforts in this field have had less visibility. On the other hand, much research and development work has been done on techniques for acquisition of language data, on upper ontologies, on resource standardisation, and, last but not least, on the Semantic Web.

One of the aims of this workshop is to provide an up-to-date view on issues relating to multilingual language resources and interoperability, in terms of language description, of technology and of applications. The development and management of multilingual language resources is a long-term activity in which collaboration among researchers is essential. We hope that this workshop will gather many researchers involved in such developments and will give them the opportunity to discuss, exchange, compare their approaches and strengthen their collaborations in the field.

The impressive overall quality of the submissions (22) made the selection process quite difficult but we would like to acknowledge the dedication of our program committee who provided many useful comments to all papers. During the reviewing process we took the decision to accept only 9 papers (about 41%) in order to allow for more discussions during the workshop.

The papers address a broad range of issues related with language resources for multilingual NLP applications, covering lexicons for general and specialised language, parallel corpora, and the acquisition of data from corpora.

In particular, questions of lexical modelling and of standards for lexical resources, as well as approaches to interoperability and resource sharing in a distributed infrastructure are in focus. As multiwords are an important part of any practically usable lexical resource, two papers have been selected which deal with questions of the representation and the corpus-based acquisition of multiword items (here: collocations), from a multilingual perspective. Finally, techniques for detecting parallel texts (here: English/Japanese) and a new view on the Bible as a truly multi-lingual resource for cross-linguistic information retrieval will be discussed as examples of approaches to get access to new sources of data for the creation of language resources.

Thus, the workshop covers central aspects of resource-related research; it is structured in a way to go upstream from lexicon standardisation and sharing, over lexical modelling to the identification and the use of corpora as a source of lexical data.

The organisation of this workshop would have been impossible without the hard work of the program committee who managed to provide accurate reviews on time, on a rather tight schedule. We would also like to thank the COLING/ACL 2006 organising committee who made this workshop possible. Finally, we hope that this workshop will lead to fruitful results for all participants.

Andreas Witt, Gilles Sérasset, Susan Armstrong, Jim Breen, Ulrich Heid, Felix Sasaki



## Organizers

### Chairs:

Susan Armstrong, ISSCO, Université de Genève, Switzerland  
Jim Breen, Monash University, Australia  
Ulrich Heid, IMS-CL, University of Stuttgart, Germany  
Felix Sasaki, World Wide Web Consortium (Keio Research Institute at SFC), Japan  
Gilles Sérasset, GETA CLIPS-IMAG, Université Joseph Fourier, France  
Andreas Witt, Bielefeld University/Eberhard-Karls-Universität Tübingen, Germany

### Program Committee:

Helen Aristar-Dry, The Linguist List  
Susan Armstrong, ISSCO, Université de Genève, Switzerland  
Pushpak Battacharya, IIT, Mumbai, India  
Christian Boitet, GETA CLIPS-IMAG, Université Joseph Fourier, France  
Pierrette Bouillon, ISSCO, Université de Genève, Switzerland  
Jim Breen, Monash University, Australia  
Nicoletta Calzolari, CNR, Pisa, Italy  
Jean Carletta, University of Edinburgh, UK  
Dan Cristea, University of Iasi, Romania  
Patrick Drouin, OLST, University of Montreal, Canada  
Scott Farrar, University of Arizona, Tucson, USA  
Ulrich Heid, IMS-CL, University of Stuttgart, Germany  
Erhard Hinrichs, Eberhard-Karls-Universität Tübingen, Germany  
Claus Huitfeldt, Bergen University, Norway  
Phanh Huy Khan, DATIC, University of Danang, Vietnam  
Nancy Ide, Vassar University, Poughkeepsie, NY, USA  
Kyo Kageura, University of Tokyo, Tokyo, Japan  
Chuah Choy Kim, USM, Penang, Malaisie  
Anke Lüdeling, HU Berlin, Germany  
Mathieu Mangeot, Université de Savoie, France  
Dieter Metzger, Bielefeld University, Germany  
Massimo Poesio, University of Essex, UK  
Alain Polguère, OLST, University of Montreal, Canada  
Andrei Popescu-belis, ISSCO, Université de Genève, Switzerland  
Goutam Kumar Saha, Centre for Development of Advanced Computing, CDAC, Kolkata, India  
Felix Sasaki, World Wide Web Consortium (Keio Research Institute at SFC), Japan  
Thomas Schmidt, ICSI, Berkeley, USA  
Gilles Sérasset, GETA CLIPS-IMAG, Université Joseph Fourier, France  
Gary Simons, SIL International, USA  
Virach Sornlertlamvanich, Thai Computational Linguistics Laboratory, NICT, Thailand  
C.M. Sperberg-McQueen, MIT Boston and W3C, USA  
Manfred Stede, Potsdam University, Germany

Koichi Takeuchi, Okayama University, Japan  
Dan Tufis RACAI, Uni Bucharest, Romania  
Jun'ichi Tsujii, University of Tokyo, Japan  
Takehito Utsuro, Kyoto University, Japan  
Andreas Witt, Bielefeld University/Eberhard-Karls-Universität Tübingen, Germany  
Michael Zock, LIF-CNRS, Marseille, France

**Additional Reviewer:**

Laurent Besacier, GEOD CLIPS-IMAG, Université Joseph Fourier, France



## Workshop Program

### Sunday, 23 July 2006

- 8:45–9:00 Registration
- 9:10–9:20 Opening Remarks
- 9:20–9:55 *Lexical Markup Framework (LMF) for NLP Multilingual Resources*  
Gil Francopoulo, Nuria Bel, Monte George, Nicoletta Calzolari, Monica Monachini, Mandy Pet and Claudia Soria
- 9:55–10:30 *The Role of Lexical Resources in CJK Natural Language Processing*  
Jack Halpern
- 10:30–11:00 Coffee break
- 11:00–11:35 *Towards Agent-based Cross-Lingual Interoperability of Distributed Lexical Resources*  
Claudia Soria, Maurizio Tesconi, Andrea Marchetti, Francesca Bertagna, Monica Monachini, Chu-Ren Huang and Nicoletta Calzolari
- 11:35–12:10 *The LexALP Information System: Term Bank and Corpus for Multilingual Legal Terminology Consolidated*  
Verena Lyding, Elena Chiocchetti, Gilles Sérasset and Francis Brunet-Manquat
- 12:10–13:45 Lunch break
- 13:45–14:20 *The Development of a Multilingual Collocation Dictionary*  
Sylviane Cardey, Rosita Chan and Peter Greenfield
- 14:20–14:55 *Multilingual Collocation Extraction: Issues and Solutions*  
Violeta Seretan and Eric Wehrli
- 14:55–15:30 *Structural Properties of Lexical Systems: Monolingual and Multilingual Perspectives*  
Alain Polguère
- 15:30–16:00 Coffee break
- 16:00–16:35 *A Fast and Accurate Method for Detecting English-Japanese Parallel Texts*  
Ken'ichi Fukushima, Kenjiro Taura and Takashi Chikayama
- 16:35–17:10 *Evaluation of the Bible as a Resource for Cross-Language Information Retrieval*  
Peter A. Chew, Steve J. Verzi, Travis L. Bauer and Jonathan T. McClain
- 17:10–17:30 Closing remarks

