

ENLG 2013

**14th European Workshop  
on  
Natural Language Generation**

**Proceedings of the Workshop**

August 8-9, 2013  
Sofia, Bulgaria

Production and Manufacturing by  
*Omnipress, Inc.*  
*2600 Anderson Street*  
*Madison, WI 53704 USA*

©2013 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: 978-1-937284-56-5

## Preface

We are pleased to present the papers accepted for presentation at the 14th European Workshop on Natural Language Generation (ENLG 2013), held in conjunction with the 51st Annual Meeting of the Association for Computational Linguistics (ACL 2013). The ENLG workshop will be held on August 8th and 9th in Sofia, Bulgaria.

This year's workshop forms part of a biennial series that has been running since 1987 and have been held at Royaumont, Edinburgh, Judenstein, Pisa, Leiden, Duisburg, Toulouse, Budapest, Aberdeen, Dagstuhl, Athens and Nancy. Together with the International Conference on Natural Language Generation (INLG), which is held in alternate years, ENLG is the main forum for research on all aspects of the generation of natural language.

For this year's edition, we invited submissions on all topics related to natural language generation. We received a total of 36 submissions from all over the world, and accepted 13 as long papers for oral presentation, and 10 as short papers for poster presentation. In addition, there were two papers accepted as demos. The first part of this volume contains all the accepted papers, as well as the abstracts by the two invited speakers for the workshop.

ENLG 2013 also hosts this year's edition of the Generation Challenges, where two shared task evaluation competitions will be presented: The KBGen Challenge (Banik, Gardent and Kow) and the Content Selection Challenge (Bouayad-Agha, Casamayor, Wanner and Mellish). Overviews of both challenges, together with short contributions by all participating teams, are found in the second part of the volume.

Another special event at this year's edition of ENLG 2013 is a panel on convergences and divergences between generating natural language from raw data or based on textual input. We have invited four panelists, two from each area, to give brief presentations. These will be followed by an open discussion.

Finally, we would like to thank the authors and the members of our program committee, whose work helped to ensure that the research papers collected herein are of a high standard. We are also delighted that Guy Lapalme and Pablo Gervás accepted our invitation to give invited talks at ENLG 2013.

Albert Gatt and Horacio Saggion  
Program co-Chairs for ENLG 2013



**Program Co-Chairs:**

Albert Gatt, University of Malta, Malta  
Horacio Saggion, Universitat Pompeu Fabra, Spain

**Program Committee:**

Kalina Bontcheva, University of Sheffield, UK  
Nadjet Bouayad-Agha, Universitat Pompeu Fabra, Spain  
Giuseppe Carenini, The University of British Columbia, Canada  
Reva Freedman, Northern Illinois University, US  
Claire Gardent, CNRS/LORIA, France  
Konstantina Garoufi, University of Potsdam, Germany  
Raquel Hervàs, Universidad Complutense de Madrid, Spain  
Srinivas Janarthanam, Heriot-Watt University, UK  
Alistair Knott, University of Otago, New Zealand  
Alexander Koller, University of Potsdam, Germany  
Leila Kosseim, Concordia University, Canada  
Emiel Krahmer, Tilburg University, Netherlands  
Elena Lloret Pastor, University of Alicante, Spain  
Chris Mellish, University of Aberdeen, UK  
Margaret Mitchell, University of Aberdeen, UK  
Paul Piwek, Open University, UK  
Ehud Reiter, University of Aberdeen, UK  
Verena Rieser, Heriot Watt University, Edinburgh, UK  
Advait Siddharthan, University of Aberdeen, UK  
Manfred Stede, Universitaet Potsdam, Germany  
Kristina Striegnitz, Union College, US  
Irina Temnikova, University of Wolverhampton, UK  
Mariet Theune, University of Twente, The Netherlands  
Takenobu Tokunaga, Tokyo Institute of Technology, Japan  
Kees van Deemter, University of Aberdeen, UK  
Ielka van der sluis, University of Groningen, Netherlands  
Keith vanderLinden, Calvin College, US  
Sebastian Varges, University of Potsdam, Germany  
Jette Viethen, Tilburg University, Netherlands  
Leo Wanner, Universitat Pompeu Fabra, Spain  
Michael White, The Ohio State University, US  
Sandra Williams, Open University, UK  
Tie-jun Zhao, Harbin Institute of Technology, China

**Additional Reviewers:**

Hailong Cao, Harbin Institute of Technology, China  
Gerard Casamayor, Universitat Pompeu Fabra, Spain  
Allan Third, Open University, UK  
Xiaoning Zhu, Harbin Institute of Technology, China

**Invited Speakers:**

Pablo Gervás, Universidad Complutense de Madrid, Spain  
Guy Lapalme, Université de Montréal, Canada

## Table of Contents

### Long papers

<i>Aligning Formal Meaning Representations with Surface Strings for Wide-Coverage Text Generation</i> Valerio Basile and Johan Bos .....	1
<i>Exploiting Ontology Lexica for Generating Natural Language Texts from RDF Data</i> Philipp Cimiano, Janna Lüker, David Nagel and Christina Unger .....	10
<i>User-Controlled, Robust Natural Language Generation from an Evolving Knowledge Base</i> Eva Banik, Eric Kow and Vinay Chaudhri .....	20
<i>Enhancing the Expression of Contrast in the SPaRky Restaurant Corpus</i> David Howcroft, Crystal Nakatsu and Michael White .....	30
<i>Generating Elliptic Coordination</i> Claire Gardent and Shashi Narayan .....	40
<i>Using Integer Linear Programming for Content Selection, Lexicalization, and Aggregation to Produce Compact Texts from OWL Ontologies</i> Gerasimos Lampouras and Ion Androutsopoulos .....	51
<i>Generating and Interpreting Referring Expressions as Belief State Planning and Plan Recognition</i> Dustin Smith and Henry Lieberman .....	61
<i>Graphs and Spatial Relations in the Generation of Referring Expressions</i> Jette Viethen, Margaret Mitchell and Emiel Krahmer .....	72
<i>What and Where: An Empirical Investigation of Pointing Gestures and Descriptions in Multimodal Referring Actions</i> Albert Gatt and Patrizia Paggio .....	82
<i>Natural Language Generation and Summarization at RALI (Invited Talk)</i> Guy Lapalme .....	92
<i>The KBGen Challenge (Generation Challenges)</i> Eva Banik, Claire Gardent and Eric Kow .....	94
<i>Overview of the First Content Selection Challenge from Open Semantic Web Data (Generation Challenges)</i> Nadjet Bouayad-Agha, Gerard Casamayor, Leo Wanner and Chris Mellish .....	98
<i>Narrative Composition: Achieving the Perceived Linearity of Narrative (Invited Talk)</i> Pablo Gervás .....	103
<i>Generating Natural Language Questions to Support Learning On-Line</i> David Lindberg, Fred Popowich, John Nesbit and Phil Winne .....	105
<i>Generating Student Feedback from Time-Series Data Using Reinforcement Learning</i> Dimitra Gkatzia, Helen Hastie, Srinivasan Janarthanam and Oliver Lemon .....	115
<i>Deconstructing Human Literature Reviews – A Framework for Multi-Document Summarization</i> Kokil Jaidka, Christopher Khoo and Jin-Cheon Na .....	125

<i>Abstractive Meeting Summarization with Entailment and Fusion</i>	
Yashar Mehdad, Giuseppe Carenini, Frank Tompa and Raymond T. NG	136

## Poster papers

<i>Automatic Voice Selection in Japanese based on Various Linguistic Information</i>	
Ryu Iida and Takenobu Tokunaga	147
<i>MIME - NLG in Pre-Hospital Care</i>	
Anne Schneider, Alasdair Mort, Chris Mellish, Ehud Reiter, Phil Wilson and Pierre-Luc Vaudry	152
<i>Generation of Quantified Referring Expressions: Evidence from Experimental Data</i>	
Dale Barr, Kees van Deemter and Raquel Fernandez	157
<i>POS-Tag Based Poetry Generation with WordNet</i>	
Manex Agirrezabal, Bertol Arrieta, Aitzol Astigarraga and Mans Hulden	162
<i>Greetings Generation in Video Role Playing Games</i>	
Björn Schlünder and Ralf Klabunde	167
<i>On the Feasibility of Automatically Describing n-dimensional Objects</i>	
Pablo Duboue	172
<i>GenNext: A Consolidated Domain Adaptable NLG System</i>	
Frank Schilder, Blake Howald and Ravi Kondadadi	178
<i>Adapting SimpleNLG for Bilingual English-French Realisation</i>	
Pierre-Luc Vaudry and Guy Lapalme	183
<i>A Case Study Towards Turkish Paraphrase Alignment</i>	
Seniz Demir, Ilknur Durgar El-Kahlout and Erdem Unal	188
<i>Towards NLG for Physiological Data Monitoring with Body Area Networks</i>	
Hadi Banaee, Mobyen Uddin Ahmed and Amy Loutfi	193

## Demo papers

<i>MIME- NLG Support for Complex and Unstable Pre-hospital Emergencies</i>	
Anne Schneider, Alasdair Mort, Chris Mellish, Ehud Reiter, Phil Wilson and Pierre-Luc Vaudry	198
<i>Thoughtland: Natural Language Descriptions for Machine Learning n-dimensional Error Functions</i>	
Pablo Duboue	200

## Generation Challenges posters

<i>An Automatic Method for Building a Data-to-Text Generator</i>	
Sina Zarriess and Kyle Richardson	202
<i>LOR-KBGEN, A Hybrid Approach To Generating from the KBGen Knowledge-Base</i>	
Bikash Gyawali and Claire Gardent	204
<i>Team UDEL KBGen 2013 Challenge</i>	
Keith Butler, Priscilla Moraes, Ian Tabolt and Kathy McCoy	206
<i>Content Selection Challenge - University of Aberdeen Entry</i>	
Roman Kutlak, Chris Mellish and Kees van Deemter	208



*UIC-CSC: The Content Selection Challenge Entry from the University of Illinois at Chicago*  
Hareen Venigalla and Barbara Di Eugenio .....210



# Workshop Program

**Thursday, August 8, 2013**

8:45–9:00      Opening Remarks

## **Session 1: NLG from Semantic Representations and Knowledge Bases**

9:00–9:30      *Aligning Formal Meaning Representations with Surface Strings for Wide-Coverage Text Generation*

Valerio Basile and Johan Bos

9:30–10:00     *Exploiting Ontology Lexica for Generating Natural Language Texts from RDF Data*  
Philipp Cimiano, Janna Lüker, David Nagel and Christina Unger

10:00–10:30    *User-Controlled, Robust Natural Language Generation from an Evolving Knowledge Base*

Eva Banik, Eric Kow and Vinay Chaudhri

10:30–11:00    Coffee Break

## **Session 2: Realisation, Aggregation and Variation**

11:00–11:30    *Enhancing the Expression of Contrast in the SPaRKY Restaurant Corpus*  
David Howcroft, Crystal Nakatsu and Michael White

11:30–12:00    *Generating Elliptic Coordination*  
Claire Gardent and Shashi Narayan

12:00–12:30    *Using Integer Linear Programming for Content Selection, Lexicalization, and Aggregation to Produce Compact Texts from OWL Ontologies*  
Gerasimos Lampouras and Ion Androutsopoulos

12:30–14:00    Lunch

**Thursday, August 8, 2013 (continued)**

**Session 3: Referring Expressions and Multimodality**

- 14:00–14:30 *Generating and Interpreting Referring Expressions as Belief State Planning and Plan Recognition*  
Dustin Smith and Henry Lieberman
- 14:30–15:00 *Graphs and Spatial Relations in the Generation of Referring Expressions*  
Jette Viethen, Margaret Mitchell and Emiel Krahmer
- 15:00–15:30 *What and Where: An Empirical Investigation of Pointing Gestures and Descriptions in Multimodal Referring Actions*  
Albert Gatt and Patrizia Paggio
- 15:30–16:00 Coffee Break

**Invited Talk I**

- 16:00–17:00 *Natural Language Generation and Summarization at RALI*  
Guy Lapalme

**Generation Challenges**

- 17:00–17:30 *The KBGen Challenge*  
Eva Banik, Claire Gardent and Eric Kow
- 17:30–18:00 *Overview of the First Content Selection Challenge from Open Semantic Web Data*  
Nadjet Bouayad-Agha, Gerard Casamayor, Leo Wanner and Chris Mellish

**Friday, August 9, 2013**

**Invited Talk II**

09:00–10:00 *Narrative Composition: Achieving the Perceived Linearity of Narrative*  
Pablo Gervás

**Session 4: NLG for Learner Support**

10:00–10:30 *Generating Natural Language Questions to Support Learning On-Line*  
David Lindberg, Fred Popowich, John Nesbit and Phil Winne

10:30–11:00 Coffee Break

11:00–11:30 *Generating Student Feedback from Time-Series Data Using Reinforcement Learning*  
Dimitra Gkatzia, Helen Hastie, Srinivasan Janarthanam and Oliver Lemon

**Session 5: NLG from Textual Input**

11:30–12:00 *Deconstructing Human Literature Reviews – A Framework for Multi-Document Summarization*  
Kokil Jaidka, Christopher Khoo and Jin-Cheon Na

12:00–12:30 *Abstractive Meeting Summarization with Entailment and Fusion*  
Yashar Mehdad, Giuseppe Carenini, Frank Tompa and Raymond T. NG

12:30–14:00 Lunch

14:00–15:30 Poster Session

15:30–16:00 Coffee Break

16:00–17:30 Round table discussion: Generating language from raw data vs. Generating language from textual input

17:30–17:45 Conclusion

Friday, August 9, 2013 (continued)

**Regular Posters**

*Automatic Voice Selection in Japanese based on Various Linguistic Information*

Ryu Iida and Takenobu Tokunaga

*MIME - NLG in Pre-Hospital Care*

Anne Schneider, Alasdair Mort, Chris Mellish, Ehud Reiter, Phil Wilson and Pierre-Luc Vaudry

*Generation of Quantified Referring Expressions: Evidence from Experimental Data*

Dale Barr, Kees van Deemter and Raquel Fernandez

*POS-Tag Based Poetry Generation with WordNet*

Manex Agirrezabal, Bertol Arrieta, Aitzol Astigarraga and Mans Hulden

*Greetings Generation in Video Role Playing Games*

Björn Schlünder and Ralf Klabunde

*On the Feasibility of Automatically Describing n-dimensional Objects*

Pablo Duboue

*GenNext: A Consolidated Domain Adaptable NLG System*

Frank Schilder, Blake Howald and Ravi Kondadadi

*Adapting SimpleNLG for Bilingual English-French Realisation*

Pierre-Luc Vaudry and Guy Lapalme

*A Case Study Towards Turkish Paraphrase Alignment*

Seniz Demir, Ilknur Durgar El-Kahlout and Erdem Unal

*Towards NLG for Physiological Data Monitoring with Body Area Networks*

Hadi Banaee, Mobyen Uddin Ahmed and Amy Loutfi

**Friday, August 9, 2013 (continued)**

**Demos**

*MIME- NLG Support for Complex and Unstable Pre-hospital Emergencies*

Anne Schneider, Alasdair Mort, Chris Mellish, Ehud Reiter, Phil Wilson and Pierre-Luc Vaudry

*Thoughtland: Natural Language Descriptions for Machine Learning n-dimensional Error Functions*

Pablo Duboue

**Generation Challenges Posters**

*An Automatic Method for Building a Data-to-Text Generator*

Sina Zarriess and Kyle Richardson

*LOR-KBGEN, A Hybrid Approach To Generating from the KBGen Knowledge-Base*

Bikash Gyawali and Claire Gardent

*Team UDEL KBGen 2013 Challenge*

Keith Butler, Priscilla Moraes, Ian Tabolt and Kathy McCoy

*Content Selection Challenge - University of Aberdeen Entry*

Roman Kutlak, Chris Mellish and Kees van Deemter

*UIC-CSC: The Content Selection Challenge Entry from the University of Illinois at Chicago*

Hareen Venigalla and Barbara Di Eugenio

