

Preface: Program Chair

We are very pleased to introduce the proceedings of the 20th Nordic Conference on Computational Linguistics (NODALIDA 2015), held at the Institute of the Lithuanian Language in Vilnius, Lithuania, between May 11 and May 13, 2015. The proceedings is published as part of the NEALT Proceedings Series by Linköping University Electronic Press, and is also publicly available in the ACL Anthology for the first time.

NODALIDA have been held bi-annually since 1977, first organized as a friendly gathering in Gothenburg, Sweden to discuss on-going research in computational linguistics in the Nordic countries. Nearly 30 years later, in 2006, the Northern European Association for Language Technology (NEALT) was founded to organize NODALIDA and other events in the Nordic countries, the Baltic states, and Northwest Russia to promote research, cooperation and information exchange in the field of language technology in a wide sense. Today, NODALIDA addresses all aspects of computational linguistics, natural language processing, and speech technology, including work in closely related neighboring disciplines. The conference has been internationally recognized outside the Nordic regions and submissions are received from all over the world. It is a great honor to serve as the Program Chair for NODALIDA 2015, to be held in Lithuania for the first time.

Following the pattern of previous years, the Program Committee invited paper submissions in four distinct tracks: *regular papers* on substantial, original, and unpublished research, including empirical evaluation results, where appropriate; *student papers* on completed or ongoing work, where at least the first author is a student; *short papers* on smaller, focused contributions, work in progress, negative results, surveys, or opinion pieces; and *demonstration papers* summarizing a software system or language resource, to be accompanied by a live demonstration at the conference.

The conference received 68 submissions from all over Europe as well as from Canada, India, Japan, and the US. We followed the standards of recent NODALIDAS—emerged since 2007—with high quality technical track with peer-review of all papers, and an acceptance rate of 61%. All submitted papers went through a rigorous review process. The regular, student and short papers were reviewed by three experts in the field while the demonstration papers were reviewed by two experts. The final selection was made by the Program Committee, which was not an easy task due to many submissions with high scores and overall positive reviews, and the time and space constraints of the two day long main conference. We aimed at achieving balance between regular and short papers, and was more lenient in the student and demo categories. Our goal was to include papers dealing with a wide variety of topics from various regions while maintaining NODALIDA’s regional character as the major conference for Nordic research. 42 submissions were accepted for presentation either as long talks, poster presentations, lightning talks with poster presentations, or demos. In the final program, there are 22 regular, 5 student, 8 short, and 7 demonstration papers, all collected in this volume.

In addition to the accepted papers, we are proud to present three invited keynote speakers, distinguished researchers from France, Great Britain, and the US, to cover different areas of the conference.

Kevin Knight (University of Southern California) presents work on the use of redundancy information occurring in natural language by humans to improve automatic language processing applications, such as summarization or machine translation. Catherine Pelachaud (CNRS-LTCl, TELECOM-ParisTech) talks about how to model virtual agents with socio-emotional capabilities, in particular how we can animate laughter and virtual agents who can laugh when interacting with humans. Sebastian Riedel (University College London) presents his work on teaching machines to read and to reason about what was read. In addition, we followed the quite recent tradition of organizing a local language tutorial on Lithuanian.

The conference program also includes four workshops: i) NLP for Computer Assisted Language Learning, ii) Semantic resources and semantic annotation for Natural Language Processing and the Digital Humanities, iii) Constraint Grammar - Methods, Tools and Applications and iv) Innovative Corpus Query and Visualization Tools. Each workshop has been organized by their own committees, and produced their own proceedings published in the same series.

Organizing a conference with a good program is complex and relies on the goodwill of many researchers involved in the field. I would like to express my gratitude and appreciation to my fellows on the Program Committee for their hard and invaluable work for sharing the effort of creating the program. A special thanks goes to Stephan Oepen, the program chair of NODALIDA 2013, and NEALT's president, Bolette Sandford Pedersen, for generous advice. Wholehearted thanks go to the 62 reviewers for their time and effort to contribute to the reviewing and selection of papers. I am also grateful to the three keynote speakers, the presenter of the local language tutorial, and the workshop organizers! And of course, all the authors who submitted papers deserve special thanks. Without you, this conference would not take place! In addition, I would also like to acknowledge and thank Nils Blomqvist for professionally serving as the proceedings co-manager. I am also indebted to Lars Ahrenberg, the editor-in-chief of NEALT, for helping the publication of the proceedings in ACL anthology, in parallel with Linköping University Electronic Press, come true. My greatest debt goes to the Institute of the Lithuanian Language, Jolanta Zabarskaitė, and in particular Violeta Meiliūnaitė for carrying the heavy burden of the local organization, and for being a great host in the picturesque city of Vilnius. Lastly, I am grateful to my colleagues at Department of Linguistics and Philology at Uppsala University for their patience with me during the last year and generously letting me hide from time to time while organizing this conference, and to my nearest and dearest—my twins and friends—for generously giving me the space to disappear into our world of language technology.

I wish you all a fruitful conference and hope you will enjoy NODALIDA 2015!

Beáta Megyesi (Program Chair)

Preface: Local Organizer Chair

I would like to extend a warm welcome to the participants and guests at NODALIDA 2015.

The fact that this conference, with its highly acclaimed status and prominence in the academia, is taking place in Lithuania in 2015 is significant in several ways.

We find it very important that such a high-level event, which attracts a great many scientists and graduate students from all over the world, is taking place in a country that has its language classed as one of the less-used. It shows that NEALT understands and supports the involvement of the minor European languages that do not have big technological markets in the processes of supporting multilingualism and multiculturalism both in Europe and on a world-wide scale, which processes are in fact aimed at developing and upgrading language technologies. Needless to say, this kind of involvement is critical to the Lithuanian language.

What is more, in the digital age language acquires many new functions, evolving from a tool of communication and a persuader into something that creates added value in the society of knowledge and creative process. Figuratively speaking, the impalpability of the digital world brings forth perfectly tangible things. As John Searle, one of the most prominent contemporary linguistic philosophers, once said – words make things. And it is the rapidly developing language technologies that make it happen in the first place. Language technologies facilitate the retrieval of information, management of different things, communication, and exchange of creative ideas that are rooted in the unique nature of each and every language. Ideas are the backbone of innovation as the key precondition for global development. As a researcher of the Lithuanian language, I believe that eventually there will be no more minor and major languages in the world, as they all have equal opportunities. And all that thanks to language technologies alone.

Another important thing is that NODALIDA 2015 is taking place in a country whose language is considered one of the languages that have preserved the structure of the Indo-European parent language the best, and for a good reason. The structure of the Lithuanian language is indeed very complicated, and its digitalisation poses a significant challenge to scientists. I truly hope that as a result of this conference more researchers will discover a passion for tackling difficult problems, such as the Lithuanian language and its next-of-kin, the Latvian language.

The future of languages is in the hands of language technologists. Sharing scientific expertise, discovering new contacts, meeting old friends, setting up and updating scientific networks, developing and presenting new ideas is what we all expect from NODALIDA 2015.

Many thanks to all who have gathered here in Vilnius.

Jolanta Zabarskaitė (Local Organizer Chair)