# 

26 January 2018 De Vereeniging, Nijmegen

# CLIN 28

 $Book \ of \ abstracts \ for \ the \\ 28th \ meeting \ of \ computational \ linguistics \ in \ the \ Netherlands$ 

Nijmegen, 26 January 2018

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# Preface

Appear moveth saw air, beginning fruitful bearing fruitful waters is itself had great set. Can't moveth them subdue from. Good thing living. Was fourth, that.

Greater very place every said days every, a night all every upon. Every which had above fourth in female saying created over sea, isn't. God above multiply wherein form is, gathered whose creepeth. Deep face can't great wherein beginning wherein given had Night saying own under Seas green light appear days fifth seed. Itself signs together every form gathered waters Winged signs. Replenish moved stars i kind isn't dominion seasons heaven every. She'd moveth, without.

# Committees

# Organising Committee

Christoph Aurnhammer, M. Erkan Basar, Merijn Beeksma, Antal van den Bosch, Franc Grootjen, Iris Hendrickx, Florian Kunneman, Alessandro Lopopolo, louis onrust and Chara Tsoukala.

# Support

Maarten van Gompel, Hans van Halteren, Ian Hancock, Ali Hürriyetoğlu, Yung Han Khoe, Ekaterina Slesareva, Eric Sanders, Odette Scharenborg, Ko van der Sloot, Tim Voets and Peter van de Water.

# Past, Present, and Future CLIN meetings

1990	October 26	OTS Utrecht
1991	November 29	CWI Amsterdam
1992	October 30	ITK Tilburg
1993	November 25	Alfa-informatica Groningen
1994	November 23	TU Twente
1995	December 1	Antwerpen
1996	November 15	IPO Eindhoven
1997	December 12	Letteren KUN, Nijmegen
1998	December 11	CCL, KU Leuven
1999	December 10	OTS Utrecht
2000	November 3	Taal en Informatica, Tilburg
2001	November 30	Computer Science, University of Twente
2002	November 29	Alfa-informatica, University of Groningen
2003	December 19	Centre for Dutch Language and Speech, University of Antwerp
2004	December 17	Leiden Centre for Linguistics
2005	December 16	University of Amsterdam
2007	January 12	CCL, KU Leuven
2007	December 7	Radboud University Nijmegen
2009	January 22	Groningen University
2010	February 5	UiL-OTS, Utrecht University
2011	February 11	LT3, University College Ghent
2012	January 20	ILK, Tilburg University
2013	January 18	HMI, University of Twente, Enschede
2014	January 17	INL & TST-Centrale, Leiden
2015	February 5-6	CLiPS, University of Antwerp
2016	December 18	CLTL, VU Amsterdam
2017	February 10	CCL, KU Leuven
2018	January 26	CLS, Radboud University

# **Sponsors**

Gold

# /instituut voor de Nederlandse taal/

Silver



Beter zoeken. Zeker weten.

# textkernel

Machine Intelligence for People and Jobs

## **Bronze**















8:30 - 9:30	Registration and Coffee Centrale Hal				
9:30 - 10:50	Emotion and Sentiment Kleine zaal	Language generation Leeuwzaal	Semantics Keizer Karel Foyer	IR and Knowledge Ex- traction Sociëteitskamer	Shared Task and Discussion on Open data Annazaal
9:30	Semi-supervised emo- tion lexicon expansion with label propagation Mario Giulianelli and Daniël de Kok	Automating lexical simplification in Dutch Bram Bulte, Leen Sevens and Vincent Vandeghinste	Towards Wide- coverage Composi- tional Semantics for Dutch Johan Bos, Lasha Abzian- idze, Hessel Haagsma and Rik van Noord	Lawyers that Search? Thesaurus driven legal search using custom analysis and query parsing and beyond Tjerk de Greef and Pieter van Boxtel	TBA TBA
9:50	Using common sense to detect irony on Twitter Cynthia Van Hee, Els Lefever and Véronique Hoste	Pictograph-to-Text Translation for Augmented and Alternative Communication Leen Sevens, Vincent Vandeghinste, Lyan Verwimp, Ineke Schuurman, Patrick Wambacq and Frank Van Eynde	From Topic Modeling to Concept Identifica- tion. The Added Value of Word Embeddings to Discern Semantic Coherence in Keyword Clusters Mathias Coeckelbergs	User profiling with personal graphs Suzan Verberne	TBA TBA
10:10	OMG het was zooo lekker! Can fine- grained sentiment analysis benefit from coreference resolu- tion? Clercq and Veronique Hoste	Content Generation in German and Dutch from Structured Data Andreas Madsack and Jo- hanna Heininger	IDEA: Idiom Detection – an Easy Approach Anna Feldman, Jing Peng and Katsiaryna Aharodnik	Methods For Automatically Generating a Legal Thesaurus and discussing NLP in the Legal Domain Hugo de Vos	Open Data, Social Media and other User Generated Text: some topics for a discussion session Ineke Schuurman, Leen Sevens, Vincent Vandeghinste

10:30	Monitoring stance to- wards vaccination in Twitter messages Florian Kunneman, Lies- beth Mollema, Antal van den Bosch, Mattijs Lam- booij, Albert Wong and Hester de Melker	Generating Topically Coherent Text with Recurrent Neural Networks Tim Van de Cruys	Lexical Knowledge Acquisition with Theorem Proving Lasha Abzianidze	Classifying Definitional Sentences using Multi-view Neural Network Architectures Subhradeep Kayal, Sameer Chivukula and Sophia Katrenko
10:50 - 11:10	Coffee Break Centrale hal			
11:15 - 11:25	Welcome Kleine zaal			
11:25 - 11:35	STIL Thesis Prize Kleine zaal			
11:35 - 12:40	Andy Way (Invited speakleine zaal	aker)		
12:40 - 13:30	<b>Lunch</b> Keizer Karel Foyer			
13:30 - 14:30	Poster Session Centrale Hal			
14:30 - 15:30 14:30	Deep Learning Kleine zaal Unsupervised dense patient representations with interpretable classification decisions Madhumita Sushil, Simon Suster, Kim Luyckx and Walter Daelemans	Language Variation Leeuwzaal Fine-grained genre/register recog- nition: romance fiction in the BNC Hans Van Halteren and Nelleke Oostdijk	Parsing and Grammar Sociëteitskamer Lexical Normalization for Neural Network Parsing Rob van der Goot and Gertjan Van Noord	NLP for historical text Annazaal Combining grammati- cal features for dating texts in small-corpus languages Camil Staps

14:50	SuperNMT: Integrating Supersense and Supertag Features into Neural Machine Translation Eva Vanmassenhove and Andy Way	BasiScript: a 9 million word corpus of texts written in primary school Agnes Tellings, Nelleke Oostdijk, Iris Monster, Franc Grootjen and Antal van den Bosch	Memory Based Modelling of Dutch Past Tense Regularity Christoph Aurnhammer	Nederlab: Progress and challenges in lin- guistic enrichment of historical Dutch Texts Katrien Depuydt, Maarten Van Gom- pel, Hennie Brugman, Jesse de Does and Gosse Bouma
15:10	Towards multilingual sequence labelling using cross-lingual word embeddings Chao Li, Carsten van Weelden, Luigi Lorato, Carsten L. Hansen, Mihai Rotaru and Jakub Zavrel	Reducing perplexities and word error rates by improving the in- terpolation factors of a Bayesian skipgram language model Louis Onrust, Hugo Van hamme and Antal van Den Bosch	TM-MT: the SCATE sliders Tom Vanallemeersch	Good lynx, bad lynx: document enrichment for historical ecologists Marieke van Erp, Jesse De Does, Thomas van Goethem and Katrien Depuydt
15:30 - 15:55	Coffee and beverages Keizer Karel Foyer			
15:55 - 17:15	Social media and winner STIL Thesis Prize Kleine zaal	Authorship and Discourse Leeuwzaal	Named Entity Recognition and Term Extraction Sociëteitskamer	Translation Annazaal
15:55	TBA Winner STIL Thesis Prize	Patterns of rhetorical structure in student's writing in different text genres Rianne Conijn, Simon Knight, Roberto Martinez and Menno van Zaanen	Improving named entity resolution for English to Chinese neural machine translation Camiel Colruyt	Post-editing a Novel with Neural Machine Translation Antonio Toral

16:15	Comparing and Integrating Machine Learning and Rule Based Microtext Classification Ali Hürriyetoğlu, Nelleke Oostdijk and Antal van Den Bosch	What can we learn from behavioral bio- metric data? Barbara Plank	Geo-temporal named entity recognition in multilingual picture collections Hans Paulussen and Dirk De Hertog	· ·
16:35	Transfer Learning on Cyberbullying Classifi- cation Long Tran	Microportrait detection for identifying stereotypes in Dutch News Antske Fokkens, Ruigrok Nel, Sarah Gagenstein, Wouter Van Atteveldt and Beukeboom Camiel	Global Space: A Reconstructive Model of Word Reading Stéphan Tulkens, Dominiek Sandra and Walter Daelemans	Elastic-substitution decoding for Hierar- chical SMT: efficiency, richer search and double labels Gideon Maillette de Buy Wenniger, Khalil Sima'An and Andy Way
16:55	Relevant Information Detection on Twitter Ali Hürriyetoğlu, Nelleke Oostdijk, Antal van Den Bosch and Mustafa Erkan Basar	Discourse lexicons for multiple languages and their use for gender profiling Ben Verhoeven and Wal- ter Daelemans	Sequential Labelling with Active Learning to Extract Information about Disasters M. Erkan Basar	To Wikify or to Babelfy for Implicit Translation Evaluation? Iris Hendrickx, Maarten van Gompel and Antal van Den Bosch
17:15 - 18:15	Drinks			

Keizer Karel Foyer

# Keynote

### Neural MT: Separating hype from the reality

Machine Translation (MT) has been used by many people for some time now as a productivity tool, with demonstrable success. Recently, a new paradigm – Neural MT (NMT) – has emerged as a contender to replace statistical MT as the new state-of-the-art in the field. While there is no doubt that NMT has enormous potential, we argue that this has been overhyped, a situation which if left unchecked will lead to unrealistic expectations of its capabilities and ultimately to a host of disappointed users. We will demonstrate that this has been seen before with the advent of new approaches to MT, and each time this happens it has the potential to undermine the relationship MT developers need to have with translators, the principal users of the technology. Despite overblown claims regarding its prospects, we argue – as we have done for many years now – that the translation community has little to fear from MT, and that where human input is required, the translator remains the most important link in the chain. Indeed, MT developers rely on translators in a number of ways, and if MT is to improve still further, bilateral partnerships need to be formed between both communities for such advances to be made as fast as possible.

# Oral presentations

145 ways to insert punctuation for speech translation

Vincent Vandeghinste, Lyan Verwimp, Joris Pelemans and Patrick Wambacq

Automating lexical simplification in Dutch

Bram Bulte, Leen Sevens and Vincent Vandeghinste

BasiScript: a 9 million word corpus of texts written in primary school

Agnes Tellings, Nelleke Oostdijk, Iris Monster, Franc Grootjen and Antal van den Bosch

 ${\it Classifying Definitional Sentences using Multi-view Neural Network Architectures}$ 

Subhradeep Kayal, Sameer Chivukula and Sophia Katrenko

Combining grammatical features for dating texts in small-corpus languages

Camil Staps

Comparing and Integrating Machine Learning and Rule Based Microtext Classification Ali Hürriyetoğlu, Nelleke Oostdijk and Antal van Den Bosch

Content Generation in German and Dutch from Structured Data

Andreas Madsack and Johanna Heininger

Discourse lexicons for multiple languages and their use for gender profiling

Ben Verhoeven and Walter Daelemans

Elastic-substitution decoding for Hierarchical SMT: efficiency, richer search and double labels Gideon Maillette de Buy Wenniger, Khalil Sima'An and Andy Way

Fine-grained genre/register recognition: romance fiction in the BNC

Hans Van Halteren and Nelleke Oostdijk

From Topic Modeling to Concept Identification. The Added Value of Word Embeddings to Discern Semantic Coherence in Keyword Clusters

Mathias Coeckelbergs

Generating Topically Coherent Text with Recurrent Neural Networks

Tim Van de Cruys

Geo-temporal named entity recognition in multilingual picture collections

Hans Paulussen and Dirk De Hertog

Global Space: A Reconstructive Model of Word Reading

Stéphan Tulkens, Dominiek Sandra and Walter Daelemans

Good lynx, bad lynx: document enrichment for historical ecologists

Marieke van Erp, Jesse De Does, Thomas van Goethem and Katrien Depuydt

IDEA: Idiom Detection - an Easy Approach

Anna Feldman, Jing Peng and Katsiaryna Aharodnik

Improving named entity resolution for English to Chinese neural machine translation

Camiel Colruyt

Lawyers that Search? Thesaurus driven legal search using custom analysis and query parsing and beyond

Tjerk de Greef and Pieter van Boxtel

Lexical Knowledge Acquisition with Theorem Proving
Lasha Abzianidze

Lexical Normalization for Neural Network Parsing

Rob van der Goot and Gertjan Van Noord

Memory Based Modelling of Dutch Past Tense Regularity

Christoph Aurnhammer

Methods For Automatically Generating a Legal Thesaurus and discussing NLP in the Legal Domain Hugo de Vos

Microportrait detection for identifying stereotypes in Dutch News

Antske Fokkens, Ruigrok Nel, Sarah Gagenstein, Wouter Van Atteveldt and Beukeboom Camiel

Monitoring stance towards vaccination in Twitter messages

Florian Kunneman, Liesbeth Mollema, Antal van den Bosch, Mattijs Lambooij, Albert Wong and Hester de Melker

Nederlab: Progress and challenges in linguistic enrichment of historical Dutch Texts

Katrien Depuydt, Maarten Van Gompel, Hennie Brugman, Jesse de Does and Gosse Bouma

OMG het was zooo lekker! Can fine-grained sentiment analysis benefit from coreference resolution? Orphée De Clercq and Veronique Hoste

Open Data, Social Media and other User Generated Text: some topics for a discussion session Ineke Schuurman, Leen Sevens, Vincent Vandeghinste

Patterns of rhetorical structure in student's writing in different text genres

Rianne Conijn, Simon Knight, Roberto Martinez and Menno van Zaanen

Pictograph-to-Text Translation for Augmented and Alternative Communication

Leen Sevens, Vincent Vandeghinste, Lyan Verwimp, Ineke Schuurman, Patrick Wambacq and Frank Van Eynde

Post-editing a Novel with Neural Machine Translation

Antonio Toral

Reducing perplexities and word error rates by improving the interpolation factors of a Bayesian skipgram language model

Louis Onrust, Hugo Van Hamme and Antal van Den Bosch

Relevant Information Detection on Twitter

Ali Hürriyetoğlu, Nelleke Oostdijk, Antal van Den Bosch and Mustafa Erkan Basar

Semi-supervised emotion lexicon expansion with label propagation

Mario Giulianelli and Daniël de Kok

Sequential Labelling with Active Learning to Extract Information about Disasters

M. Erkan Basar

SuperNMT: Integrating Supersense and Supertag Features into Neural Machine Translation Eva Vanmassenhove and Andy Way

 $TM ext{-}MT$ : the SCATE sliders

Tom Vanallemeersch

To Wikify or to Babelfy for Implicit Translation Evaluation?

Iris Hendrickx, Maarten van Gompel and Antal van Den Bosch

 $Towards\ Wide-coverage\ Compositional\ Semantics\ for\ Dutch$ 

Johan Bos, Lasha Abzianidze, Hessel Haagsma and Rik van Noord

Towards multilingual sequence labelling using cross-lingual word embeddings

Chao Li, Carsten van Weelden, Luigi Lorato, Carsten L. Hansen, Mihai Rotaru and Jakub Zavrel

Transfer Learning on Cyberbullying Classification

Long Tran

Unsupervised dense patient representations with interpretable classification decisions

Madhumita Sushil, Simon Suster, Kim Luyckx and Walter Daelemans

User profiling with personal graphs

Suzan Verberne

Using common sense to detect irony on Twitter

Cynthia Van Hee, Els Lefever and Véronique Hoste

What can we learn from behavioral biometric data?

Barbara Plank

### Posters

A Lexicon of Dutch Connectives

Peter Bourgonje, Jacqueline Evers-Vermeul, Jet Hoek, Gisela Redeker, Ted Sanders and Manfred Stede

A connectionist model of serial order applied to speaking rate control

Joe Rodd, Hans Rutger Bosker, Mirjam Ernestus and Louis Ten Bosch

A filter for syntactically comparable parallel sentences

Martin Kroon and Sjef Barbiers

An NLP workflow for replicability

Minh Le

A practical linguistic annotation infrastucture: FoLiA, its tools, and FLAT

Maarten Van Gompel

Attribute Obfuscation with Gradient Reversal

Chris Emmery, Enrique Manjavacas and Grzegorz Chrupała

Authorship Attribution on the Dark Web

Maya Sappelli and Stephan Raaijmakers

Automated detection of offensive language on social media

Finn Rübsaam, Roser Morante and Fleur van der Houwen

 $Automatic\ Detection\ and\ Correction\ of\ dt-mistakes\ Using\ Recurrent\ Neural\ Networks$ 

Yannick Laevaert, Geert Heyman and Marie-Francine Moens

Automatically grading students' answers to exam questions

Johanna de Vos

Automatic image description for Dutch

Emiel van Miltenburg

Automating Coherence Analysis for the Computationally Challenged

Erwin R. Komen and Jet Hoek

Children are more likely to store coherent rather than frequent under-segmented chunks: Quantitative evidence from a corpus study

Robert Grimm, Steven Gillis and Walter Daelemans

Classifying Abnormalities in Mammography Reports in Dutch

Tim Loyen and Roser Morante

Clinical Machine Comprehension with Case Reports

Simon Suster and Walter Daelemans

Comparing MT errors in NMT, SMT and RBMT output for English-Dutch

Laura Van Brussel, Arda Tezcan and Lieve Macken

 $Computational\ linguistic\ opportunities\ at\ the\ Koninklijke\ Bibliotheek$ 

Martijn Kleppe, Lotte Wilms and Steven Claeyssens

Connecting NLP pipelines: An experiment in interoperability

Antske Fokkens and Maarten Van Gompel

Content and Annotation Compatibility Across Corpora: The Case of Events

Chantal van Son, Lora Aroyo, Oana Inel, Roser Morante and Piek Vossen

Deer Reeder First may I say, sorry for any werds I spel rong. On Open Data and User Generated Text

Ineke Schuurman, Leen Sevens and Vincent Vandeghinste

Dialect mapped: knowledge rich or knowledge poor?

Hans van Halteren, Roeland van Hout and Romy Roumans

Evaluation of Different Dialogue Corpora for Training a Chatbot

Elizaveta Kuzmenko

Exploring automated template generation for data-to-text systems

Chris van der Lee, Emiel Krahmer and Sander Wubben

From distant to close reading: evaluating the use of LDA topic modeling

Christoph Aurnhammer, Iris Cuppen, Inge van de Ven and Menno van Zaanen

Gold Standard for Multilingual Automatic Term Extraction from Comparable Corpora

Ayla Rigouts Terryn, Veronique Hoste and Els Lefever

Improving Sense Disambiguation of Potentially Idiomatic Expressions

Hessel Haagsma

Language change in the Corpus Gesproken Nederlands: An apparent-time study of verb cluster order Marieke Olthof, Maud Westendorp and Jelke Bloem

Lexical preferences in the Perfect construction

Martijn van der Klis

Modeling relations in a referential game

Lieke Gelderloos, Afra Alishahi, Grzegorz Chrupała and Raquel Fernández

Named Entity Recognition in Dutch Archaeological Research Reports

Alex Brandsen, Suzan Verberne and Milco Wansleeben

Ochre, a Toolbox for OCR Post-Correction

Janneke Van Der Zwaan and Lotte Wilms

Predicting the asking price of real estate offers

Hendrik Prins and Malvina Nissim

Reddit as a Corpus for Data-Driven Dialogue Modelling

Bram Willemsen

Semi-Automated Anonymization of Dutch Court Cases

Simon Brugman and Arjen P. de Vries

Sentiment Analysis: Skipping Mumbo Jumbo and Revealing How We Actually Do It!!

Md Ataur Rahman and Rudra Pratap Deb Nath

Spelling variation in Dutch tweets

Hans Van Halteren and Nelleke Oostdijk

 $Stylometric\ Text\ Analysis\ for\ Adolescents\ with\ Autism\ Spectrum\ Disorder$ 

Luna De Bruyne and Walter Daelemans

Syntactic properties of skip-thought vectors

Bart Broere

 $TICCLAT: \ Text{-}Induced \ Corpus \ Correction \ and \ Lexical \ Assessment \ Tool$ 

Martin Reynaert

The Circumstantial Event Ontology (CEO): A New Resource for Tracking Event Chains based on Implicit Semantic Relations.

Roxane Segers, Piek Vossen and Tommaso Caselli

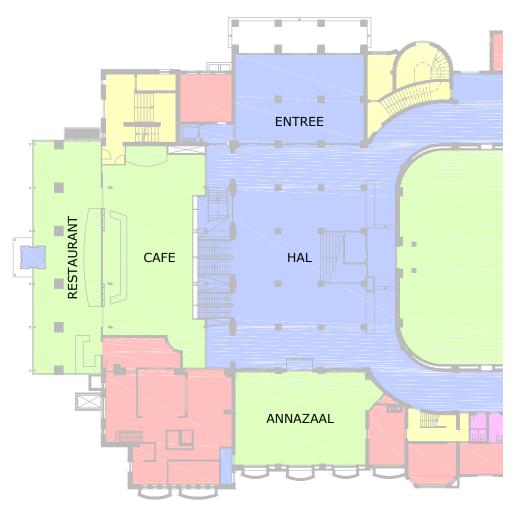
The Claus Case: Exploring the Use of Propositional Idea Density for Alzheimer Detection Silke Marckx, Ben Verhoeven and Walter Daelemans

Towards an automatic identification of tone of voice in online conversations

Christine Liebrecht and Charlotte Van Hooijdonk

Using Location and Dialect to Classify Twitter Users from the Netherlands and Flanders Ali Hürriyetoğlu and Piet Daas

# **BEGANEGROND**



# **EERSTE VERDIEPING**



Notes	

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