

# TextGraphs-4

## Graph-based Methods for NLP

Special Theme: Cognitive and Social Dynamics of Languages in the framework of Complex Networks

The TextGraphs-4 workshop addresses a broad spectrum of research areas and brings together specialists working on graph-based models and algorithms for natural language processing and computational linguistics, as well as on the theoretical foundations of related graph-based methods. TextGraphs-4 builds on the success of the previous three TextGraphs workshops.

### Special Theme

TextGraphs-4 will have a special theme on "Cognitive and Social Dynamics of Languages in the framework of Complex Networks". Cognitive dynamics of languages include topics focused primarily on language acquisition, but also language change (historical linguistics) and language evolution. The effect of social factors on language acquisition, change and evolution and topics such as mining the social networks of blogs and emails constitute the other part of the theme: "social dynamics of languages."

### Topics of Interest

#### Theory

Random walk models in NLP; graph clustering algorithms; spectral methods; comparative analysis of graph-based methods and traditional machine learning techniques; unsupervised and semi-supervised graph-based methods, dynamic graph representations for NLP

#### Applications

Properties of lexical, semantic, syntactic and phonological graphs; graph methods for morpho-syntactic annotation, word sense disambiguation, IR, IE, summarization, text mining and understanding; graph-based representations, acquisition and evaluation of lexicon and ontology

#### Special Theme Topics

Lexical, phonological, syntactic and semantic acquisition; growth of the mental lexicon; lexical change; applications of networks in modeling language variation & dialectometry; effect of social structure on language change and evolution; analysis of blog and email networks for IR and IE

### Submission Guidelines

Submissions will consist of regular full papers of max. 8 pages and short papers of max. 4 pages formatted according to the ACL/IJCNLP 2009 guidelines. Reviewing will be double-blind. Furthermore, self-references that reveal the author's identity must be avoided. Check the TextGraphs-4 website for more details.

### Special Issue in Journal

High quality submissions pertaining to the special theme of the workshop will be invited for publication in a special issue of *Computer Speech and Language*, Elsevier (IF: 1.094) on "*Network-based Models of Cognitive and Social Dynamics of Language.*"

### Previous TextGraphs

TextGraphs-1 at HLT-NAACL 2006  
<http://lit.csci.unt.edu/~textgraphs/ws06>

TextGraphs-2 at HLT-NAACL 2007  
<http://lit.csci.unt.edu/~textgraphs/ws07>

TextGraphs-3 held at Coling 2008  
<http://lit.csci.unt.edu/~textgraphs/ws08>

### Important Dates

Paper Submission: May 1, 2009

Acceptance: June 1, 2009

Camera Ready: June 7, 2009

Workshop: August 7, 2009

### Organizing Committee

Monojit Choudhury Microsoft Research

Samer Hassan University of North Texas

Animesh Mukherjee IIT Kharagpur

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### Program Committee

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