Effective hybrid preprocessing algorithms



György Orosz

Faculty of Information Technology and Bionics Pázmány Péter Catholic University

This dissertation is submitted for the degree of Doctor of Philosophy

Table of contents

Table of contents				j
1	Introduction			1
	1.1	Resear	rch Aims	1
	1.2	Metho	dology	1
2	Algo	orithms	for Morphological Disambiguation	2
	2.1	Introd	uction	2
		2.1.1	Background	2
	2.2	2.2 Experiments		2
		2.2.1	Context Dependent Statistically Driven Lemmatization	3
		2.2.2	Hybrid Morphological Disambiguation	3
		2.2.3	Combining Morphological Disambiguation Tools	3
	2.3	Summ	ary	3
3	Preprocessing Algorithms for Clinical Hungarian		4	
4	Parsing Speech Transcripts of Children			5
5	Summary – New Scientific Results			6

Introduction

- 1. basic concepts (Pos tagging, morphological analyzer/tagging, lemmatizing)
- 2. importance of the problems
- 3. historical overview

1.1 Research Aims

1. research aims and questions

1.2 Methodology

- 1. commonly used algorithms
- 2. how to evaluate
- 3. used resources)

Algorithms for Morphological Disambiguation

2.1 Introduction

- 1. Focused research aim: effective algorithms that can be easily domain adapted
- 2. importance of the problem
- 3. historical notes (?)

2.1.1 Background

- Commonly used methods: Rules, Brill, Tnt, HunPos, Maxent modells, CRF modells, SVM modells
- Uses cases for other languages

2.2 Experiments 3

2.2 Experiments

2.2.1 Context Dependent Statistically Driven Lemmatization

Methods

Evaluation

2.2.2 Hybrid Morphological Disambiguation

Methods

Evaluation

2.2.3 Combining Morphological Disambiguation Tools

Methods

Evaluation

2.3 Summary

Preprocessing Algorithms for Clinical Hungarian

Parsing Speech Transcripts of Children

Summary – New Scientific Results