

Logics and Ontologies for NLP LogOnto2014

Valeria de Paiva and Alexandre Rademaker Workshop associated with FOIS2014 http://emap.fgv.br/logonto-2014/

Just a few words...

- Welcome to Rio de Janeiro!
- We were planning a smaller workshop, mostly to see other members of our disperse group
- The workshop grew up somewhat, which is nice
- So the program is more diverse and more exciting.
- We'd like to thank our invited speakers: Prof Renata Vieira, Prof Hermann Hauesler and Dr Vinnay Chaudri, (as well as our missing invited speaker Dr Adam Pease, who couldn't join us due to bureaucratic details) for making this workshop possible
- Thanks also to all the authors, who had to cope with a complicated schedule... and to FGV for all the support so far!
- I'd like to take 2 minutes to talk about our work and our group, so far...



Logics and Ontologies for Portuguese, Nov 2011

http://emap.fgv.br/NLP-2011/program.htm

Logics and Ontologies for Portuguese

November, 21-25th 2011

Welcome | Program

Organization Registration

Welcome

It is a truth universally acknowledged, that we need more lexical resources for any natural language whatsoever. And if there is a lack of lexical resources for natural language processing of English texts, the problem is ten-fold more acute for other languages, such as Portuguese, which lack even easily accessible corpora and basic tools such as tokenizers, taggers and splitters. This lack of resources slows down considerably, almost stops, any work on reasoning about knowledge obtained from language, the main goal of the project on Textual Inference Logic (TIL), coordinated by Alexandre Rademaker (EMAp/FGV) and Valéria de Paiva (Rearden Commerce, CA).

Location

The TIL project, funded by the Fundação Getulio Vargas (FGV) aims to, in the long run, use formal logical tools to reason about knowledge obtained from text in Portuguese. We are mostly logicians, not linguists, so we want to minimize the amount of Computational Linguistics that we have to develop. To help develop the necessary basic tools, we are stimulating the collaboration with different groups of researchers working in similar problems and trying to investigate how results obtained from natural language processing research in other languages can be adapted and applied to



ARCOS DA LAPA 1906



+ Even earlier: September 2010...



PROCESSAMENTO DE LINGUAGEM NATURAL: UMA PERSPECTIVA PESSOAL WINGING NLP...

Valeria de Paiva. Cuil. Inc.

OpenWordNet-PT: part of Multilingual Wordnet 1.2

Results for « dormir » (por)

<u>00017282-v</u> (9) V1	dormir, adormecer fall asleep, drop off, nod off, flake out, doze off, drowse off, drift off, dope off	change from a waking to a sleeping state
$\frac{00014742 - v}{V1}$ (60)	dormir, cochilar, pernoitar, tirar uma soneca	be asleep
	sleep, slumber, kip, catch some Z's, log Z's dormir, cochilar, repousar, descansar	be at rest
	rest	
Search WN dor	mir Langs: Portuguese + English +	

<u>More detail about the Open Multilingual Wordnet (1.2)</u> This project is now integrated in the <u>Extended Open Multilingual Wordnet (1.2)</u> Maintainer: <u>Francis Bond</u> <<u>bond@ieee.org</u>>

Logic and Lexical Ontologies for Language

Group: Alexandre Rademaker, Bruno Lopes, Claudia Freitas, Dario Oliveira,Gerard de Melo, Livy Real, Suemi Higuchi, Hermann Hauesler, Luiz Carlos Pereira, and Valeria de Paiva

> culum asentento inu merabihan mulnerii moum multitudme quibus a famo capito ufat adomum pedre munetanie fuitti etab mipuffonie caem ficilite famanie et fa tuffono fanguine tuo nibucatus qu'a man muchicatus qu'a man



Improving a Portuguese Wordnet to work with Logic coming from free form text.



start	end	activity
09:00	09:10	Workshop Opening
09:10	10:00	Invited Talk: Ontologies for NLP, NLP for ontologies (Renata Vieira, PUC-RS, Brazil)
10:00	11:00	Session 1: chair Valeria de Paiva
10:00	10:25	Complex Categories in Ontologies (Alexandra Arapinis and Laure Vieu)
10:25	10:50	Nominalisations: a lexical semantic proposal (Livy Real)
10:50	11:00	Discussion
11:00	11:30	Coffee Break
11:30	13:00	Session 2: chair Valeria de Paiva
11:30	11:55	A Meta-Level Ontology for Specialized Communication (Dagmar Gromann)
11:55	12:20	Review of Págico: Evaluating Wikipedia-based information retrieval in Portuguese (Cristina Mota, Alberto Simões, Claudia Freitas, Luis Costa and Diana Santos)
12:20	12:45	Portuguese Relation Extraction in the Organization Domain (Sandra Collovini, Lucas Pugens, Marcelo de Bairros Pereira Filho and Renata Vieira)
12:45	13:00	Discussion

13:00 14:00 Lunch Break



14:00	15:30	Session 3: chair Alexandre Rademaker
14:00	14:50	Invited Talk: Kelsenian Jurisprudence, legal ontologies and intuitionistic logic (Edward Hermann Haeusler, PUC-Rio, Brazil)
14:50	15:15	Competing Ontologies and Verbal Disputes (Jakub Mácha)
15:15	15:40	Discussion
15:40	16:00	Coffee Break
16:00	17:00	Session 4: chair Alexandre Rademaker
16:00	17:00	Invited Talk: <u>Challenges in Commercializing Expert Knowledge Authoring</u> (Vinay Chaudhri, SRI, EUA)
17:00	17:50	Closing Session
17:00	17:25	Modelling Geometric Objects with ISO 15926: a computer aided approach (Bruno Lopes and Geiza Silva)
17:25	17:50	Final Discussion

+ Here's to new editions of LogOnto...



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References

Revisiting a Brazilian Wordnet. Valeria de Paiva, Alexandre Rademaker, (2012) Proceedings of Global Wordnet Conference, Global Wordnet

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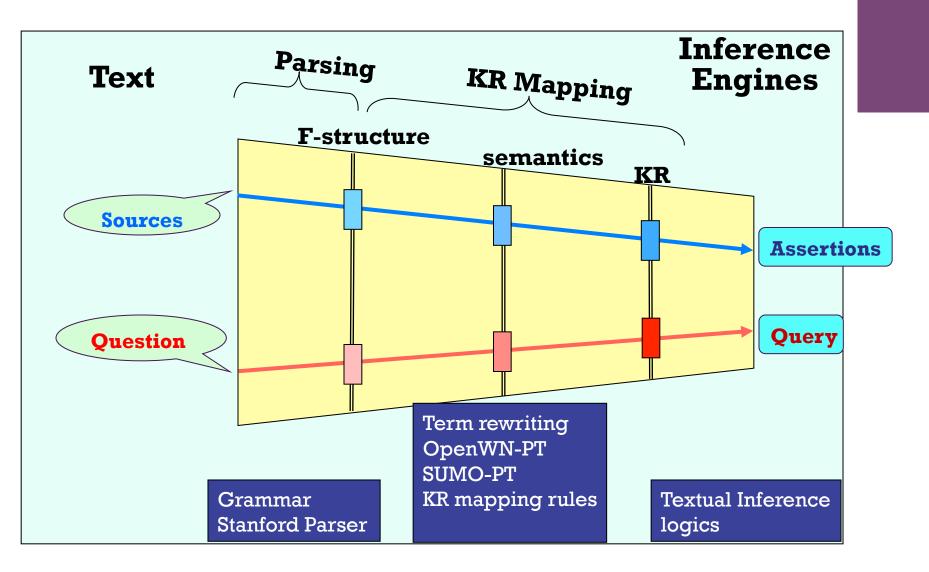
`A Basic Logic for Textual inference", AAAI Workshop on Inference for Textual Question Answering, 2005.

``Textual Inference Logic: Take Two", CONTEXT 2007.

``Precision-focused Textual Inference", Workshop on Textual Entailment and Paraphrasing, 2007.

<u>PARC's Bridge and Question Answering System</u> Proceedings of Grammar Engineering Across Frameworks, 2007.

+ Simplifying the PARC's Bridge Architecture



Idea: Simplify and reproduce components in PORTUGUESE