Linguateca & University of Oslo, Norway Linguateca & 2Ai Lab, IPCA, Portugal

## Literateca

# Towards a computational environment for studying literature **in Portuguese**

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#### Literateca Introduction

#### Contents

Works Annotation Size

#### **Example studies**

Emotions across time Speech description profiles Reference to clothing Health, pain, and the medical professions





#### ► A literary and linguistic environment to study texts in Portuguese.





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- A corpus infrastructure on top of Open CWB, containing several annotation layers.



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- A corpus infrastructure on top of Open CWB, containing several annotation layers.
- With an interface to dedicated R programs for statistical computations and their visualization.



Literateca contains the following kinds of works:

- Classical works from 1300 onwards
- Canonical literary texts
- Non-canonical literary texts
- Excerpts of literary texts that have been translated into other languages





All texts have been annotated by a broad-coverage parser for Portuguese, PALAVRAS (Bick, 2000). In addition:





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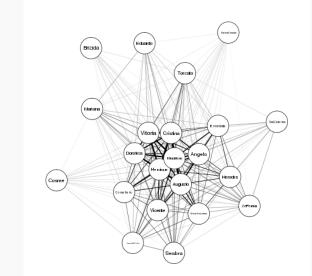
## Semantic domains

- Colours, clothing, body, family, emotions and health have been annotated
- and (partially) human-revised

#### "Literary" concerns

- Metadata like gender, genre and literary school has been added
- NE categories like person, place and works have been revised
- Characters have beed added

#### Contents Character network example







Current (15 august 2019) numbers

- 28 million words
- ▶ 784 works from 212 authors
- 187 novels from the "COST period"
- 6 novels annotated with characters

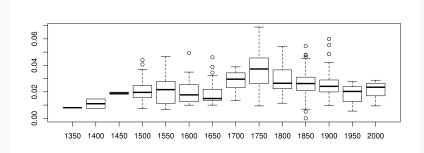
nomem amo partehora Fpessoa Sa cabeça rei rua **amigo pé<sub>povo</sub>** céu ರ್ocarta ar Se no <sup>ຜ</sup>vezes terra ອີອັງorta ຜ palavra coração gente ທ filha**tor** verdade VeZ

## A lexicon of emotion words

More than 4,000 lemmas divided in 24 categories. Not yet revised.

Presence in the texts			
amor	107,203	desejo	72,242
feliz	61,541	infeliz	61,488
medo	38,473	gen	30,237
vergonha	28,135	orgulho	25,439
feliz & satisfeito	22,889	coragem	21,117
surpresa	20,637	humildade	20,282
odio	19,502	esperanca	19,259
furia	14,943	satisfeito	14,651
desespero	14,601	saudade	13,037

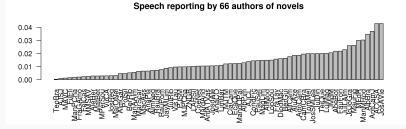
# **Emotions across time**



# Speech description profiles

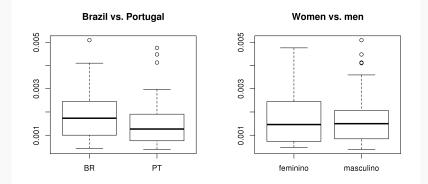
## Speech verbs

- Three kinds of report (direct speech, indirect speech, mixed), and simple mention
- use of for direct speech
- often expressing atitude or feeling

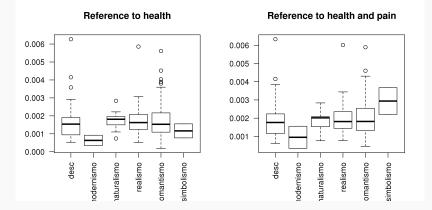


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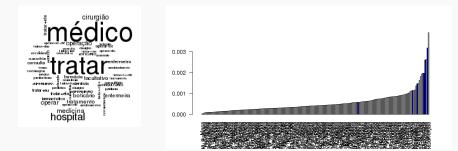
# Reference to clothing in novels



# Health and pain



# The medical professions: Doctors and nurses



Thank you for your attention!