Interoperabilità tra risorse linguistiche per il latino

I Linguistic Linked Open Data e la LiLa Knowledge Base

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Overview

Introduction and Fundamentals

LiLa: Mission and Architecture

LiLa now!

Lemma Bank and Lexical Resources

Textual Resources

Services and Tools

To sum up

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Research question

State of affairs

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Scattered and unconnected

LiLa Knowledge Base

Approach: Linked Data paradigm

ERC Consolidator Grant 2018-2023

A collection of multifarious, interoperable linguistic resources described with the same vocabulary for knowledge description (by using common data categories and ontologies)

Interlinking as a Form of Interaction

CLARIN

Common Language Resources and Technology Infrastructure

Infrastructure

LiLa

Linking Latin

Interoperability

The Linked Data Principles

…just to be FAIR

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- Use HTTP URIs to allow people (and machines) to look up things
- Use web standards to represent/query (meta)data, such as RDF and SPARQL
- Include links to other URIs

Benefits of Applying LD to Linguistic Resources

Chiarcos et al. (2013)

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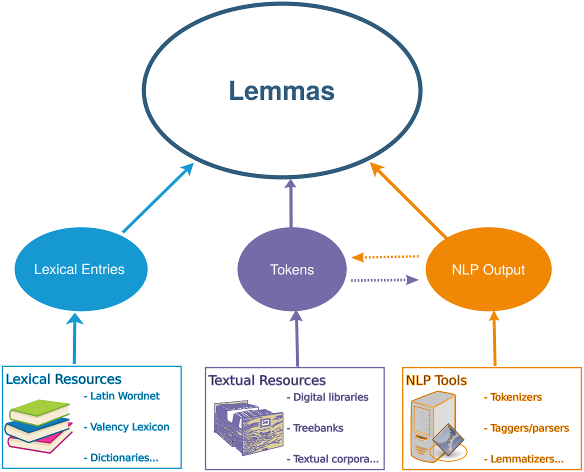
- Federation: to combine information from physically separated repositories
- Dynamicity: to provide access to the most recent version of a resource
- Ecosystem: maintained by a large and active community with common tools and practices

LiLa Knowledge Base

Lexically-based architecture and (meta)data sources



LiLa: Structure

LiLa as mere reflection

LiLa reflects the annotation granularity of the resources it connects

No data enrichment or further analysis is performed
…but we can help you to enrich your (meta)data

LiLa: Requirements

Connecting resources in the Knowledge Base

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Connecting resources in the Knowledge Base

To enter the LiLa Knowledge Base, a textual/lexical resource must be:

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- Part-of-Speech tagged (ideally, using the Universal Dependencies tagset)
- Online!

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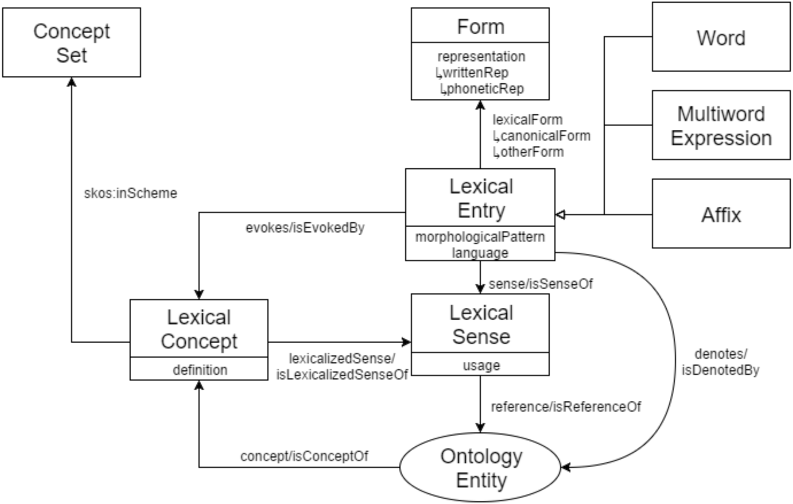
LiLa and Ontolex Lemon

A *de facto* W3C standard for publishing lexical data as LLOD



Lemma Bank and Lexical Resources

The core of LiLa. Source: LEMLAT (extended)

Lemma *admiror* ‘to admire, to respect’

`http://lila-erc.eu/data/id/lemma/87541`

- Lemma Bank
- A bilingual Latin English dictionary (Lewis & Short)
- A derivational lexicon (Word Formation Latin)
- A polarity lexicon (LatinAffectus)
- An etymological dictionary (De Vaan)
- A Valency Lexicon (Latin Vallex)
- A manually checked subset of the Latin WordNet

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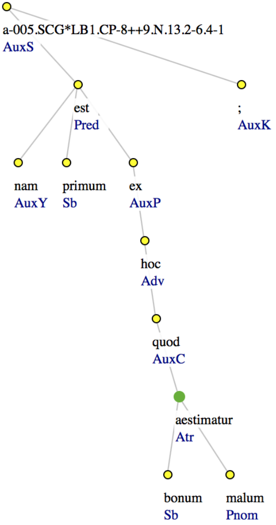
(Annotated) Corpora in LiLa

Source: The *Index Thomisticus* Treebank (original scheme)

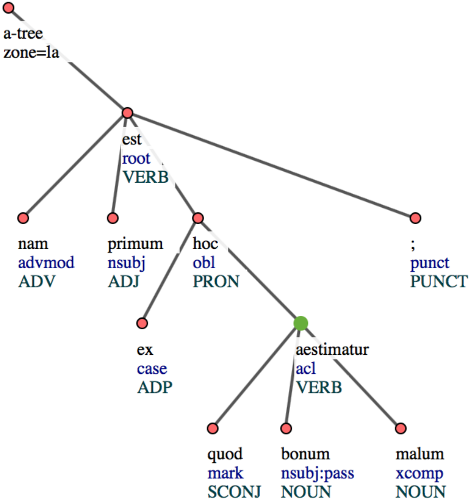
nam primum est ex hoc quod bonum ***aestimatur*** *malum*; (IT-TB: SCG, lib. 1, cap. 89, n. 13)

for the first arises because the good ***is judged*** *to be evil*; (Trans. Anton C. Pegis)



(Annotated) Corpora in LiLa

Source: The *Index Thomisticus* Treebank (UD scheme)



(Annotated) Corpora in LiLa

A token from the *Index Thomisticus* Treebank in LiLa

Token *aestimatur*

`http://lila-erc.eu/lodview/data/corpora/ITTB/id/token/005.SCG*LB1.CP-8++9.N.13.2-6.4-1W8`

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Lemma Bank Query Interface

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`https://lila-erc.eu/query/`

SPARQL Access Point

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`https://lila-erc.eu/sparql/`

TextLinker

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http://lila-erc.eu:8080/LiLaTextLinker/

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LiLa: Overview

Resources connected and upcoming connections

Textual Resources

- ☑ Index Thomisticus Treebank (*Summa contra Gentiles*): ca. 400,000 nodes
- ☑ UDante Treebank: ca. 46,000 tokens
- ☑ *Querolus sive Aulularia*: ca. 17,000 tokens
- ☑ *Liber Abbaci* (ch. VIII) by Leonardo Fibonacci: ca. 30,000 tokens
- ☑ LASLA Corpus: ca. 1.7 million tokens
- □ PROIEL and LLCT treebanks, CompHistSem, CroALa, Musisque DeoQue

Lexical Resources

- ☑ Lemma Bank: ca. 200,000 canonical forms
- ☑ Word Formation Latin: ca. 36,000 lemmas (Classical Latin)
- ☑ Etymological Dict. of Latin & the Other Italic Langs.: ca. 1,500 entries
- ☑ LatinAffectus: ca. 3,300 entries
- ☑ Index Graecorum Vocabulorum in L. Latinam Transl.: ca. 1,800 entries
- ☑ Latin WordNet: ca. 2,500 manually checked entries
- ☑ Latin Vallex 2.0: ca. 2,000 entries
- ☑ Lewis & Short Dictionary: ca. 50,000 entries
- □ Lexikon der Indogermanischen Verben (LIV). Wiktionary, BabelNet

TOTAL: approximately 33 million triples

Thanks!

Get in touch

LiLa: Linking Latin
Università Cattolica del Sacro Cuore
CIRCSE Research Centre

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`https://github.com/CIRCSE`

🌐 `https://lila-erc.eu`

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