Building the Legal Knowledge Graph for Smart Compliance Services in Multilingual Europe

Results

Project Information

Lynx

Grant agreement ID: 780602

Funded under
H2020-EU.2.1.1.

Closed project

Start date
1 December 2017

End date
31 March 2021

Overall budget
€ 3 638 065

EU contribution
€ 2 959 247,52

Coordinated by
UNIVERSIDAD POLITECNICA DE MADRID
Spain

Deliverables

Documents, reports (14)

Initial Data Management Plan

Pilots requirements analysis report

Intermediate report on Lynx acquired corpora
Final report of the data management activities
Intermediate report on Lynx acquired vocabularies
Evaluation Report of the Lynx platform and pilots
Intermediate report on communication activities
Testing and evaluation plan
Technical architecture design
Report on Lynx acquired vocabularies
Functional requirements analysis report
Report on Lynx acquired corpora
Technical requirements analysis report
Final report on communication activities

Demonstrators, pilots, prototypes (6)
Demonstrator for pilot 3
Demonstrator for pilot 1
Intermediate demonstrator for pilot 2
Intermediate demonstrator for pilot 2
Intermediate demonstrator for pilot 3
Intermediate demonstrator for pilot 3

Demonstrator for pilot 2

Intermediate demonstrator for pilot 1
Intermediate demonstrator for pilot 1

Other (17)

Final version of Workflow definition
Final version of Workflow definition

Summarisation and annotation services
Summarisation and annotation services

Catalog of relevant legal and regulatory datasets
Catalog of relevant legal and regulatory datasets

Intermediate translation services
Intermediate translation services

Intermediate information retrieval and recommender services
Intermediate information retrieval and recommender services

Final platform prototype
Final platform prototype

Website, project identity set, and communication plan
Website, project identity set, and communication plan

Final implementation and report of Data and Content Curation Services
Final implementation and report of Data and Content Curation Services

Initial version of Workflow definition
Initial version of Workflow definition

Information retrieval and recommender services
Information retrieval and recommender services
Publications

Conference proceedings (15)

Automatic Induction of Named Entity Classes from Legal Text Corpora

**Author(s):** Peter Bourgonje, Anna Breit, Maria Khvalchik, Victor Mireles, Julián Moreno Schneider, Artem Revenko, and Georg Rehm

**Published in:** Joint Proceedings of Workshops AI4LEGAL2020, NLIWOD, PROFILES 2020, QuWeDa 2020 and SEMIFORM2020 Colocated with the 19th International Semantic Web Conference (ISWC 2020), 2020

Towards a Linked Open Data of Language Resources in the Legal Domain
A Dataset of German Legal Documents for Named Entity Recognition

Author(s): Elena Leitner, Georg Rehm and Julián Moreno-Schneider
Published in: Proceedings of The 12th Language Resources and Evaluation Conference, 2020

Building the Legal Knowledge Graph for Smart Compliance Service in Multilingual Europe

Author(s): Elena Montiel-Ponsoda, Víctor Rodríguez-Doncel, Jorge Gracia
Published in: Proceedings of the 1st Workshop on Technologies for Regulatory Compliance, 2018, Page(s) 15-17

Curation Technologies for the Construction and Utilisation of Legal Knowledge Graphs

Author(s): Julián Moreno-Schneider, Georg Rehm
Published in: Workshop on Language Resources and Technologies for the Legal Knowledge Graph, 2018, Page(s) 23-29

Lynx: Building the Legal Knowledge Graph for Smart Compliance Services in Multilingual Europe

Author(s): Elena Montiel-Ponsoda, Víctor Rodríguez-Doncel
Published in: Workshop on Language Resources and Technologies for the Legal Knowledge Graph, 2018, Page(s) 19-22

Towards a Workflow Manager for Curation Technologies in the Legal Domain

Author(s): Julián Moreno-Schneider, Georg Rehm
Published in: Workshop on Language Resources and Technologies for the Legal Knowledge Graph, 2018, Page(s) 30-35

Business Requirements for Legal Knowledge Graph: the LYNX Platform

Author(s): Jorge González-Conejero, Pompeu Casanovas, Emma Teodoro
Published in: 2nd Workshop on Technologies for Regulatory Compliance, Issue CEUR-Vol-2309/03, 2019, Page(s) 31-38, ISSN 1613-0073

Events in the legal domain: first impressions

Author(s): María Navas-Loro, Cristiana Santos
Published in: 2nd Workshop on Technologies for Regulatory Compliance, Issue CEUR-Vol-2309/03, 2019, Page(s) 31-38, ISSN 1613-0073
Challenges of Terminology Extraction from Legal Spanish Corpora

Author(s): Patricia Martín-Chozas, Pablo Calleja
Published in: 2nd Workshop on Technologies for Regulatory Compliance, Issue CEUR Vol-2309/05, 2019, Page(s) 45-57, ISSN 1613-0073

Spanish Legislation as Linked Data

Author(s): Víctor Rodríguez-Doncel, María Navas-Loro, Elena Montiel-Ponsoda, Pompeu Casanovas
Published in: 2nd Workshop on Technologies for Regulatory Compliance, Issue CEUR Vol-2309/07, 2019, Page(s) 73-83, ISSN 1613-0073

Developing and Orchestrating a Portfolio of Natural Language Processing and Document Curation Services

Author(s): Georg Rehm, Julian Moreno-Schneider, Jorge Gracia, Artem Revenko, Víctor Mireles, Maria Khvalchik, Ilan Kernerman, Andis Lagzdings, Marcis Pinnis, Arturs Vasilevskis, Elena Leitner, Jan Milde, Pia Weissenhorn
Published in: Proceedings of the Natural Legal Language Processing Workshop 2019, 2019, Page(s) 55-66

Orchestrating NLP Services for the Legal Domain

Author(s): Julián Moreno-Schneider, Georg Rehm, Elena Montiel-Ponsoda, Víctor Rodriguez-Doncel, Artem Revenko, Sotirios Karampatakis, Maria Khvalchik, Christian Sageder, Jorge Gracia, and Filippo Maganza
Published in: Proceedings of the 12th Language Resources and Evaluation Conference (LREC 2020), 2020, Page(s) 2325-2333

A Workflow Manager for Complex NLP and Content Curation Pipelines

Author(s): Julián Moreno-Schneider, Peter Bourgonje, Florian Kintzel, and Georg Rehm
Published in: Proceedings of the 1st International Workshop on Language Technology Platforms (IWLTP 2020, co-located with LREC 2020), 2020, Page(s) 73-80

A domain independent semantic measure for keyword sense disambiguation

Author(s): María G. Buey, Carlos Bobed, Jorge Gracia, Eduardo Mena
Published in: Proceedings of the 36th Annual ACM Symposium on Applied
Terminologies and Ontologies

**Author(s):** Elena Montiel-Ponsoda  
**Published in:** Theoretical Approaches to Terminology. From the Other Side of the Looking Glass., 2021

Orchestrating NLP Services for the Legal Domain

**Author(s):** Moreno-Schneider, Julián; Rehm, Georg; Montiel-Ponsoda, Elena; Rodriguez-Doncel, Víctor; Revenko, Artem; Karampatakis, Sotirios; Khvalchik, Maria; Sageder, Christian; Gracia, Jorge; Maganza, Filippo  
**Published in:** 2020

"Lynx Webinar Series #1"

**Author(s):** Elena Montiel-Ponsoda  
**Published in:** 2020

"Lynx Webinar Series #2"

**Author(s):** Elena Montiel-Ponsoda  
**Published in:** 2021

Proceedings of TIAD-2019 Shared Task – Translation Inference Across Dictionaries

**Author(s):** Jorge Gracia, Besim Kabashi, Ilan Kerneraman  
**Published in:** Proceedings of TIAD-2019 Shared Task – Translation Inference Across Dictionaries, 2019

Lynx D2.3 Intermediate report on Lynx acquired corpora

**Author(s):** Ajausks, Ėriks; Mireles-Chaves, Víctor; Sageder, Christian; Lagzdinš, Andis; Montiel-Ponsoda, Elena  
**Published in:** Issue 1, 2019  
**DOI:** 10.5281/zenodo.2655048

Lynx D4.2 Initial version of workflow definition
Lynx D1.4 Setup and implementation of the basic platform
Author(s): Filippo Maganza; Kennedy Junior Anagbo
Published in: Issue 4, 2019
DOI: 10.5281/zenodo.3236427

Lynx D3.2 Intermediate translation services
Author(s): Andis Lagzdiņš
Published in: Issue 12, 2019
DOI: 10.5281/zenodo.2580103

Lynx D3.3 Intermediate summarisation and annotation services
Author(s): Julián Moreno-Schneider; Georg Rehm; María Navas-Loro
Published in: Issue 10, 2019
DOI: 10.5281/zenodo.3235751

Lynx D3.1 Intermediate extraction and linking services
Author(s): Victor Mireles-Chavez; Victor Rodriguez-Doncel; Artem Revenko; Maria Khvalchik; Vova Dzhuranyuk
Published in: Issue 8, 2019
DOI: 10.5281/zenodo.2580155

Lynx D1.3 Technical architecture design
Author(s): Filippo Maganza; Kennedy Junior Anagbo
Published in: Issue 3, 2019
DOI: 10.5281/zenodo.2580245

Lynx D2.4 Data Management Plan
Author(s): Víctor Rodríguez-Doncel; Socorro Bernardos; Rebeca Varela; Patricia Martín-Chozas
Published in: Issue 11, 2019
DOI: 10.5281/zenodo.3236319

Lynx D6.3 Intermediate report on communication activities
Author(s): Jorge González-Conejero
Published in: Issue 5, 2019
DOI: 10.5281/zenodo.3235717

Lynx D2.2 Intermediate report on Lynx acquired vocabularies
Author(s): Kernerman, Ilan; Martín Chozas, Patricia; Lagzdinš, Andis
Published in: Issue 7, 2018
Compliance, Issue Vol-2049, 2018, ISSN 1613-0073

Proceedings of the LREC 2018 Workshop on Language Resources and Technologies for the Legal Knowledge Graph

**Author(s):** Georg Rehm, Víctor Rodríguez-Doncel, Julián Moreno-Schneider

**Published in:** Proceedings of the LREC 2018 Workshop on Language Resources and Technologies for the Legal Knowledge Graph, 2018

Innovación y tecnología europeas para la internacionalización de PYMES

**Author(s):** Víctor Rodríguez-Doncel

**Published in:** InnovaSpain, 2018

Lynx and the Legal Knowledge Graph: Integrating lexical and terminological resources with legal data

**Author(s):** Elena Montiel-Ponsoda, Víctor Rodríguez-Doncel, Patricia Martin-Chozas, Ilan Kernerman

**Published in:** Kernerman Dictionary News, 2018, Page(s) 2-5, ISSN 1565-4745

Proceedings of the 2nd Workshop on Technologies for Regulatory Compliance co-located with the 31st International Conference on Legal Knowledge and Information Systems (JURIX 2018)

**Author(s):** Víctor Rodríguez-Doncel, Pompeu Casanovas, Jorge González-Conejero, Elena Montiel-Ponsoda

**Published in:** Terecom 2018- Technologies for Regulatory Compliance., Issue CEUR Vol-2309, 2019, Page(s) 0-147, ISSN 1613-0073

Orchestrating legal NLP services for a portfolio of use cases

**Author(s):** Artem Revenko

**Published in:** 2020

Abstractive Text Summarization based on Language Model Conditioning and Locality Modeling

**Author(s):** Aksenov, Dmitrii; Moreno-Schneider, Julián; Bourgonje, Peter; Schwarzenberg, Robert; Hennig, Leonhard; Rehm, Georg

**Published in:** Issue 7, 2020

Book chapters (3)
ContractFrames: Bridging the Gap Between Natural Language and Logics in Contract Law

Author(s): María Navas-Loro, Ken Satoh, Víctor Rodríguez-Doncel
Published in: New Frontiers in Artificial Intelligence - JSAI-isAI 2018 Workshops, JURISIN, AI-Biz, SKL, LENLS, IDAA, Yokohama, Japan, November 12–14, 2018, Revised Selected Papers, Issue 11717, 2019, Page(s) 101-114
DOI: 10.1007/978-3-030-31605-1_9

Question Answering for Link Prediction and Verification

Author(s): Maria Khvalchik, Artem Revenko, Christian Blaschke
Published in: The Semantic Web: ESWC 2019 Satellite Events - ESWC 2019 Satellite Events, Portorož, Slovenia, June 2–6, 2019, Revised Selected Papers, Issue 11762, 2019, Page(s) 116-120
DOI: 10.1007/978-3-030-32327-1_23

Language Resources as Linked Data for the Legal Domain

Author(s): Patricia Martín-Chozas, Elena Montiel-Ponsoda, Víctor Rodríguez-Doncel
Published in: Frontiers in Artificial Intelligence and Applications, Issue Ebook Volume 317: Knowledge of the Law in the Big Data Age, 2019, Page(s) 170-180
DOI: 10.3233/faia190019

Peer reviewed articles (1)

Annotador: a temporal tagger for Spanish

Author(s): María Navas-Loro, Víctor Rodríguez-Doncel
Published in: Journal of Intelligent & Fuzzy Systems, 2020, ISSN 1875-8967
DOI: 10.3233/jifs-179865

Monographic books (2)

Linked Democracy - Foundations, Tools, and Applications

Author(s): Marta Poblet, Pompeu Casanovas, Víctor Rodríguez-Doncel
Published in: 2019
DOI: 10.1007/978-3-030-13363-4

Proceedings of TIAD-2019 Shared Task – Translation Inference Across Dictionaries co-located with the 2nd Language, Data and Knowledge Conference (LDK) 2019

Author(s): Ilan Kernerman, Simon Krek, John P. McCrae, Jorge Gracia, Sina Ahmadi, Besim Kabashi
Published in: Proceedings of Globalex 2020 Workshop on Linked Lexicography,
Datasets

Datasets via OpenAIRE (6)

Bilingual Dataset for Information Retrieval and Question Answering over the Spanish Workers Statute

**Author(s):** Calleja, Pablo; Chozas, Patricia Martín; Montiel-Ponsoda, Elena; Rodríguez-Doncel, Víctor; Gómez, Elsa; Boil, Pascual

**Published in:** Zenodo

Labour Law Terminology v2

**Author(s):** Chozas, Patricia Martín; Ponsoda, Elena Montiel; Vázquez, Karen; Doncel, Víctor Rodríguez

**Published in:** Zenodo

Duplicate chemical questions from https://chemistry.stackexchange.com/

**Author(s):** Mireles, Victor

**Published in:** Zenodo

Austrian court decisions

**Author(s):** Sageder, Christian; Revenko, Artem; Schneider, Julian Moreno; Breit, Anna; Mireles, Victor; Karampatakis, Sotiris

**Published in:** Zenodo

Labour Law Terminology v1

**Author(s):** Martín-Chozas, Patricia; Montiel-Ponsoda, Elena; Vázquez, Karen; Rodríguez-Doncel, Víctor

**Published in:** Zenodo

Labour Law Terminology

**Author(s):** Martín-Chozas, Patricia; Montiel-Ponsoda, Elena; Vázquez, Karen; Rodríguez-Doncel, Víctor

**Published in:** Zenodo