

Khresmoi Multilingual Medical Text Analysis, Search and Machine Translation Connected in a Thriving Data-Value Chain

Results

Project Information

KConnect

Grant agreement ID: 644753



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Project closed

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Total cost

€ 3 889 842,50

EU contribution

€ 3 083 083,00

Coordinated by

TECHNISCHE UNIVERSITAET
WIEN

Austria

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Deliverables

Documents, reports (6) ▼

[Requirements for Medical Record Analysis and Search](#)

This deliverable will summarise the interactions and decisions made during the requirements specification process for the medical record analysis and search

[Initial Data Management Plan](#)

The Data Management Plan will describe the data that KConnect will generate whether and how it will be exploited or made accessible for verification and reuse and how it will be curated and preserved

[Ethics Approvals](#)

This deliverable responds to the Ethics Screening Report It will include copies of ethical approvals for the collection of personal data by the competent University Data Protection Officer National Data Protection authority and detailed information on the procedures that will be implemented for data collection storage protection retention and destruction as well as confirmation that they comply with national and EU legislation

[Updated Data Management Plan](#)

The Data Management Plan will describe the data that KConnect will generate whether and how it will be exploited or made accessible for verification and reuse and how it will be curated and preserved

[Component Interoperability Architecture](#)

This deliverable will describe the KConnect cloud infrastructure and design the service interface of key project services

[Requirements for Vertical Search Solutions](#)

This deliverable will summarise the interactions and decisions made during the requirements specification process for the vertical search solutions

Websites, patent fillings, videos etc. (2)

[Final KConnect web site](#)

The final version of the KConnect web site as described in Task 51

[Initial KConnect web site](#)

The initial version of the KConnect web site as described in Task 51

Demonstrators, pilots, prototypes (7)

[Log Analysis and Document Classification Toolkit \(First Version\)](#)

This toolkit will comprise the crosslingual medical document classification tools for a number of useful classes such as readability trustability and target audience as well as crosslingual medical search log analysis tools with interesting behaviour patterns available Tools and guidelines for adding new classes and behaviours will also be part of this toolkit

[Toolkit and Report for Translator Adaptation to New Languages \(Final Version\)](#)

A set of tools allowing easy addition of new languages to the Khresmoi Translator by exploiting various training resources decision support tools to assist in the choice of resources to include based on their price or effort to expected increase in translation performance and a user guide on how to add a new language

[Toolkit and Report for Translator Adaptation to New Languages \(First Version\)](#)

A set of tools allowing easy addition of new languages to the Khresmoi Translator by exploiting various training resources decision support tools to assist in the choice of resources to include based on their price or effort to expected increase in translation performance and a user guide on how to add a new language

[Adaptation to Hungarian, Swedish, and Polish](#)

Khresmoi Translator adapted to translation from English to Hungarian Swedish Polish and vice versa based on publicly available resources and data automatically harvested from the web

[Semantic Annotation Toolkit \(First Version\)](#)

This toolkit will comprise processes for adapters to follow when moving KConnect to a new language and the tools required to make this shift It will include tools for configuring the annotation pipeline and for integrating terminologies

Documentation will include guides for sourcing the required resources and for adapting them where necessary

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Publications

Peer reviewed articles (10) 

[Language Independent Tokenization vs. Stemming in Automated Detection of Health Websites' HONcode Conformity: An Evaluation](#) 

Author(s): Célia Boyer, Ljiljana Dolamic, Gilles Falquet

Published in: Procedia Computer Science, Issue 64, 2015, Page(s) 224-231, ISSN 1877-0509

Publisher: Elsevier

DOI: 10.1016/j.procs.2015.08.484

[Automated Detection of HONcode Website Conformity Compared to Manual Detection: An Evaluation](#) 

Author(s): Célia Boyer, Ljiljana Dolamic

Published in: Journal of Medical Internet Research, Issue 17/6, 2015, Page(s) e135, ISSN 1438-8871

Publisher: Journal of medical Internet Research

DOI: 10.2196/jmir.3831

[How users search and what they search for in the medical domain](#) 

Author(s): João Palotti, Allan Hanbury, Henning Müller, Charles E. Kahn

Published in: Information Retrieval Journal, Issue 19/1-2, 2016, Page(s) 189-

224, ISSN 1386-4564

Publisher: Kluwer Academic Publishers

DOI: 10.1007/s10791-015-9269-8

[Negative symptoms in schizophrenia: a study in a large clinical sample of patients using a novel automated method](#)

Author(s): Rashmi Patel, Nishamali Jayatilleke, Matthew Broadbent, Chin-Kuo Chang, Nadia Foskett, Genevieve Gorrell, Richard D Hayes, Richard Jackson, Caroline Johnston, Hitesh Shetty, Angus Roberts, Philip McGuire, Robert Stewart

Published in: BMJ Open, Issue 5/9, 2015, Page(s) e007619, ISSN 2044-6055

Publisher: BMJ Publishing Group

DOI: 10.1136/bmjopen-2015-007619

[Extracting antipsychotic polypharmacy data from electronic health records: developing and evaluating a novel process](#)

Author(s): Giouliana Kadra, Robert Stewart, Hitesh Shetty, Richard G. Jackson, Mark A. Greenwood, Angus Roberts, Chin-Kuo Chang, James H. MacCabe, Richard D. Hayes

Published in: BMC Psychiatry, Issue 15/1, 2015, ISSN 1471-244X

Publisher: BioMed Central

DOI: 10.1186/s12888-015-0557-z

[Making sense of big data in health research: Towards an EU action plan](#)

Author(s): Charles Auffray, Rudi Balling, Inês Barroso, László Bencze, Mikael Benson, Jay Bergeron, Enrique Bernal-Delgado, Niklas Blomberg, Christoph Bock, Ana Conesa, Susanna Del Signore, Christophe Delogne, Peter Devilee, Alberto Di Meglio, Marinus Eijkemans, Paul Flicek, Norbert Graf, Vera Grimm, Henk-Jan Guchelaar, Yi-Ke Guo, Ivo Glynne Gut, Allan Hanbury, Shahid Hanif, Ralf-Dieter Hilgers, Ángel Ho

Published in: Genome Medicine, Issue 8/1, 2016, ISSN 1756-994X

Publisher: BioMed Central

DOI: 10.1186/s13073-016-0323-y

[Neural Monkey: An Open-source Tool for Sequence Learning](#)

Author(s): Jindřich Helcl, Jindřich Libovický

Published in: The Prague Bulletin of Mathematical Linguistics, Issue 107/1, 2017, Page(s) 5-17, ISSN 0032-6585

Publisher: De Gruyter

DOI: 10.1515/pralin-2017-0001

[Natural language processing to extract symptoms of severe mental illness from clinical text: the Clinical Record Interactive Search Comprehensive Data Extraction \(CRIS-CODE\) project](#)


Author(s): Richard G Jackson, Rashmi Patel, Nishamali Jayatilleke, Anna Kolliakou, Michael Ball, Genevieve Gorrell, Angus Roberts, Richard J Dobson,

Robert Stewart

Published in: BMJ Open, Issue 7/1, 2017, Page(s) e012012, ISSN 2044-6055

Publisher: BMJ Publishing Group

DOI: 10.1136/bmjopen-2016-012012

[Automated PDF highlighting to support faster curation of literature for Parkinson's and Alzheimer's disease](#) 

Author(s): Honghan Wu, Anika Oellrich, Christine Girges, Bernard de Bono, Tim J.P. Hubbard, Richard J.B. Dobson

Published in: Database, Issue 2017/1, 2017, ISSN 1758-0463

Publisher: Oxford University Press

DOI: 10.1093/database/bax027

[Language, Structure, and Reuse in the Electronic Health Record](#) 

Author(s): Angus Roberts

Published in: The AMA Journal of Ethic, Issue 19/3, 2017, Page(s) 281-288, ISSN 2376-6980

Publisher: American Medical Association

DOI: 10.1001/journalofethics.2017.19.3.stas1-1703

Conference proceedings (20)

The Influence of Pre-processing on the Estimation of Readability of Web Documents

Author(s): João Rafael de Moura Palotti, Guido Zuccon, Allan Hanbury

Published in: Proceedings of the 24th ACM International on Conference on Information and Knowledge Management, 2015, Page(s) 1763-1766, ISBN 978-1-4503-3794-6

Publisher: ACM

[CUNI in WMT15: Chimera Strikes Again](#) 

Author(s): Ondřej Bojar, Aleš Tamchyna

Published in: Proceedings of the Tenth Workshop on Statistical Machine Translation, 2015, Page(s) 79-83

Publisher: Association for Computational Linguistics

DOI: 10.18653/v1/W15-3006

CLEF eHealth Evaluation Lab 2015, Task 2: Retrieving Information About Medical Symptoms

Author(s): Joao Palotti, Guido Zuccon, Lorraine Goeriot, Liadh Kelly, Allan Hanbury, Gareth Jones, Mihai Lupu, Pavel Pecina

Published in: Working Notes of CLEF 2015 - Conference and Labs of the Evaluation forum, 2015

Publisher: CEUR Workshop Proceedings

Author(s): Shadi Saleh, Feraena Bibyna, Pavel Pecina

Published in: Working Notes of CLEF 2015 - Conference and Labs of the Evaluation forum, 2015

Publisher: CEUR Workshop Proceedings

[What a Transfer-Based System Brings to the Combination with PBMT](#)

Author(s): Aleš Tamchyna, Ondrej Bojar

Published in: Proceedings of the Fourth Workshop on Hybrid Approaches to Translation (HyTra), 2015, Page(s) 11-20

Publisher: Association for Computational Linguistics

DOI: 10.18653/v1/W15-4103

[UFPRSheffield: Contrasting Rule-based and Support Vector Machine Approaches to Time Expression Identification in Clinical TempEval](#)

Author(s): Hegler Tissot, Genevieve Gorrell, Angus Roberts, Leon Derczynski, Marcos Didonet Del Fabro

Published in: Proceedings of the 9th International Workshop on Semantic Evaluation (SemEval 2015), 2015, Page(s) 835-839

Publisher: Association for Computational Linguistics

DOI: 10.18653/v1/S15-2141

[Effect of the Named Entity Recognition and Sliding Window on the HONcode Automated Detection of HONcode Criteria for Mass Health Online Content](#)

Author(s): Celia Boyer, Ljiljana Dolamic, Patrick Ruch, Gilles Falquet

Published in: Proceedings of the 9th International Joint Conference on Biomedical Engineering Systems and Technologies, 2016, Page(s) 151-158, ISBN 978-989-758-170-0

Publisher: SCITEPRESS - Science and Technology Publications

DOI: 10.5220/0005644301510158

[Encoding Medication Episodes for Adverse Drug Event Prediction](#)

Author(s): Honghan Wu, Zina M. Ibrahim, Ehtesham Iqbal, Richard J. B. Dobson

Published in: 2016, Page(s) 245-250

Publisher: Springer International Publishing

DOI: 10.1007/978-3-319-47175-4_18

Adapting SMT Query Translation Reranker to New Languages in Cross-Lingual Information Retrieval

Author(s): Pecina, Pavel; Saleh, Shadi

Published in: Issue 6, 2016

Publisher: workshop organisers

[Overview of the CLEF eHealth Evaluation Lab 2016](#)

Author(s): Liadh Kelly, Lorraine Goeuriot, Hanna Suominen, Aurélie Névéol, João Palotti, Guido Zuccon

Published in: 2016, Page(s) 255-266

Publisher: Springer International Publishing


DOI: 10.1007/978-3-319-44564-9_24

Task3 Patient-Centred Information Retrieval: Team CUNI

Author(s): Pecina, Pavel; Saleh, Shadi

Published in: Issue 1, 2017

Publisher: CEUR-WS

[Assessors Agreement: A Case Study across Assessor Type, Payment Levels, Query Variations and Relevance Dimensions](#) 

Author(s): Joao Palotti, Guido Zuccon, Johannes Bernhardt, Allan Hanbury, Lorraine Goeuriot

Published in: 2016, Page(s) 40-53

Publisher: Springer International Publishing

DOI: 10.1007/978-3-319-44564-9_4

TUW @ TREC Clinical Decision Support Track 2015

Author(s): Joao Palotti, Allan Hanbury

Published in: Text Retrieval Conference, 2015

Publisher: NIST

Task3 Patient-Centred Information Retrieval: Team CUNI

Author(s): Saleh Shadi, Pavel Pecina

Published in: CLEF 2016 Working Notes, 2016, Page(s) 123-129

Publisher: CEUR-WS

[Does Online Evaluation Correspond to Offline Evaluation in Query Auto Completion?](#) 

Author(s): Alexandros Bampoulidis, João Palotti, Mihai Lupu, Jon Brassey, Allan Hanbury

Published in: 2017, Page(s) 713-719

Publisher: Springer International Publishing

DOI: 10.1007/978-3-319-56608-5_70

[Ranking Health Web Pages with Relevance and Understandability](#) 

Author(s): Joao Palotti, Lorraine Goeuriot, Guido Zuccon, Allan Hanbury

Published in: Proceedings of the 39th International ACM SIGIR conference on Research and Development in Information Retrieval - SIGIR '16, 2016, Page(s) 965-968, ISBN 9781-450340694

Publisher: ACM Press

DOI: 10.1145/2911451.2914741

The IR Task at the CLEF eHealth Evaluation Lab 2016: User-centred Health Information Retrieval

Author(s): Pecina, Pavel; Deacon, Anthony; Lupu, Mihai; Zuccon, Guido; Kelly, Liadh; Palotti, João; Goeuriot, Lorraine; Müller, Henning; Budaher, Julie

Published in: Issue 4, 2016

Publisher: CEUR-WS

[CUNI System for WMT16 Automatic Post-Editing and Multimodal Translation Tasks](#) 

Author(s): Jindřich Libovický, Jindřich Helcl, Marek Tlustý, Ondřej Bojar, Pavel Pecina

Published in: Proceedings of the First Conference on Machine Translation: Volume 2, Shared Task Papers, 2016, Page(s) 646-654

Publisher: Association for Computational Linguistics

DOI: 10.18653/v1/W16-2361

Reranking Hypotheses of Machine-Translated Queries for Cross-Lingual Information Retrieval

Author(s): Pecina, Pavel; Saleh, Shadi

Published in: Experimental IR Meets Multilinguality, Multimodality, and Interaction 7th International Conference of the CLEF Association, Issue 5, 2016, Page(s) 54-66, ISBN 978-3-319-44563-2

Publisher: Springer

[Interactive exploration of healthcare queries](#) 

Author(s): Alexandras Bampoulidis, Mihai Lupu, Joao Palotti, Sokratis Metallidis, Jon Brassey, Allan Hanbury

Published in: 2016 14th International Workshop on Content-Based Multimedia Indexing (CBMI), 2016, Page(s) 1-4, ISBN 978-1-4673-8695-1

Publisher: IEEE

DOI: 10.1109/cbmi.2016.7500275

Book chapters (1)



[Using Health Statistics to Improve Medical and Health Search](#) 

Author(s): Tawan Sierek, Allan Hanbury

Published in: Experimental IR Meets Multilinguality, Multimodality, and Interaction, 2015, Page(s) 287-292, ISBN 978-3-319-24027-5

Publisher: Springer International Publishing

DOI: 10.1007/978-3-319-24027-5_30

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