

Curriculum Vitæ

Alberto Lavelli

(last update: December 2020)

- **Place and date of birth:**

Born in

- **Degree:**

1987: “Laurea” degree in Computer Science at the University of Milan (Milan, Italy).

- **Current position:** (since 2005)

Senior Researcher at the HLT-NLP research unit of FBK-ict (Fondazione Bruno Kessler, Center for Information and Communication Technology).

- **Previous positions:**

- 1992 - 2005:

Researcher at the Cognitive and Communication Technologies Division of ITC-irst (Istituto per la Ricerca Scientifica e Tecnologica).

- 1988 - 1991:

Junior Researcher at the Cognitive and Communication Technologies Division of ITC-irst (Istituto per la Ricerca Scientifica e Tecnologica).

- **Research Interests:**

- Machine Learning Techniques for Information Extraction from text;
- Information Extraction in the biomedical domain;
- Parsing Techniques (both constituency parsing and dependency parsing in a multi-lingual perspective); ;

- **Google Scholar profile:**

<https://scholar.google.com/citations?hl=en&user=Aq7t-gmq1Y0C>

- **Research Projects:**

- I am working in the European project E3C (European Clinical Case Corpus);
- I have been working in the project “MelanoBase”, in cooperation with University of Zurich;
- I have been working in the project “Automatic Classification of Radiological Reports for Clinical Care”, in cooperation with Università degli Studi di Brescia and ASST Spedali Civili di Brescia;
- I worked in the EU project EXCITEMENT (EXploring Customer Interactions through Textual EntailMENT; 2012-2014);
- I was the Project Manager of the FBK-irst team of the X-MEDIA European project
- I was the Project Manager of the ITC-irst team of the DOT.KOM European project
- In 2000-01 I was ITC-irst responsible for the part of the project with Kataweb concerning Information Extraction from web pages

- **Selected Publications (2011-2020):**

Luca Putelli, Alfonso Gerevini; Lavelli, Alberto; Matteo Olivato; Ivan Serina; Deep learning for classification of radiology reports with a hierarchical schema; in *Proceedings of the 24th International Conference on Knowledge-Based and Intelligent Information and Engineering Systems*; 2020.

Bernardo Magnini; Alberto Lavelli; Simone Magnolini; Comparing Machine Learning and Deep Learning Approaches on NLP Tasks for the Italian Language; in *Proceedings of the 12th Language Resources and Evaluation Conference*; 2020.

Silvia Casola; Alberto Lavelli; FBK@SMM4H2020: RoBERTa for detecting medications on Twitter; in *Proceedings of the 5th Social Media Mining for Health Applications (#SMM4H) Workshop & Shared Task 2020*; 2020.

Sheikhalishahi, Seyedmostafa; Miotto, Riccardo; Dudley, Joel T; Alberto Lavelli; Rinaldi, Fabio; Osmani, Venet; Natural Language Processing of Clinical Notes on Chronic Diseases: Systematic Review; in *JMIR MEDICAL INFORMATICS*; Vol. 7; 2019.

Lauriola, Ivano; Polato, Mirko; Alberto Lavelli; Rinaldi, Fabio; Aiolli, Fabio; Learning Preferences for Large Scale Multi-label Problems; in *Artificial Neural Networks and Machine Learning - ICANN 2018*; 2018.

Alfonso Gerevini; Alberto Lavelli; Maffi, Alessandro; Maroldi, Roberto; Minard, Anne-Lyse Myriam; Serina, Ivan; Squassina, Guido; Automatic classification of radiological reports for clinical care; in *ARTIFICIAL INTELLIGENCE IN MEDICINE*; Vol. 91; 2018; pp. 72-81.

Alam, Firoj; Corazza, Anna; Alberto Lavelli; Zanolli, Roberto, A knowledge-poor approach to chemical-disease relation extraction, in *DATABASE*, 2016.

Ben Abacha, Asma; Chowdhury, Md. Faisal Mahbub; Karanasiou, Aikaterini; Mrabet, Yassine; Alberto Lavelli; Zweigenbaum, Pierre, Text Mining for Pharmacovigilance: Using Machine Learning for Drug Name Recognition and Drug-Drug Interaction Extraction and Classification, in *Journal of Biomedical Informatics*, vol. 58, 2015, pp. 122-132.

A. Corazza; Alberto Lavelli; G. Satta, An Information-Theoretic Measure to Evaluate Parsing Difficulty Across Treebanks, in *ACM Transactions on Speech and Language Processing*, vol. 9, n. 4, 2013, pp. 7:1-7:31.

F.M. Chowdhury; Alberto Lavelli, Exploiting the Scope of Negations and Heterogeneous Features for Relation Extraction: A Case Study for Drug-Drug Interaction Extraction, in *Proceedings of the 2013 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*, 2013, pp. 765-771.

F. M. Chowdhury; Alberto Lavelli, Combining Tree Structures, Flat Features and Patterns for Biomedical Relation Extraction, in *Proceedings of the 13th Conference of the European Chapter of the Association for Computational Linguistics*, 2012, pp. 420-429.

Alessio Palmero Aprosio; Claudio Giuliano; Alberto Lavelli, Towards an automatic creation of localized versions of DBpedia, in *Proceedings of the 12th International Semantic Web Conference (ISWC 2013)*, 2013.

- **PhD Students: Advisor**

Silvia Casola, University of Padova

Ivano Lauriola, University of Padova

Luca Putelli, University of Brescia

Faisal Chowdhury, University of Trento

- **Organisational Activities:**

- Member of the Organizing Committee of the 12th International Workshop on Health Text Mining and Information Analysis (LOUHI 2021), April 19 or 20 2021.
- Member of the Organizing Committee of the 11th International Workshop on Health Text Mining and Information Analysis (LOUHI 2020), November 20 2020.

- Member of the Organizing Committee of the 10th International Workshop on Health Text Mining and Information Analysis (LOUHI 2019), Hong Kong, November 3 2019.
 - Member of the Organizing Committee of the 9th International Workshop on Health Text Mining and Information Analysis (LOUHI 2018), Brussels, Belgium, October 31 2018.
 - Member of the Organizing Committee of the Joint Symposium on Semantic Processing. Textual Inference and Structures in Corpora (JSSP 2013), Trento, Italy, November 20-22 2013.
 - Local Chair of the 11th Conference of the European Chapter of the Association for Computational Linguistics (EACL-2006), Trento, Italy, April 3-7 2006.
 - Member of the Organizing Committee of the EACL 2006 Workshop on Adaptive Text Extraction and Mining (ATEM 2006), Trento, Italy, April 4 2006.
 - Research Notes and Demos Chair of the 10th Conference of the European Chapter of the Association for Computational Linguistics (EACL-2003), Budapest, Hungary, April 12–17 2003.
 - Member of the Organizing Committee of the 6th International Workshop on Tree Adjoining Grammars and Related Frameworks (TAG+6), Venice, Italy, 20–23 May 2002.
 - Local Chair of the 6th International Workshop on Parsing Technologies (IWPT 2000), Trento, Italy, 23–25 February 2000.
 - Member of the Organizing Committee of the ACL/EACL’97 Workshop on Computational Environments for Grammar Development and Linguistic Engineering, Madrid, Spain, July 12th 1997.
- Programme Committees and Reviewing Activities:
 - Member of the Program Committee of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP-2020), November 16-20 2020.
 - Member of the Program Committee of the 58th Annual Meeting of the Association for Computational Linguistics (ACL-2020), July 5-10 2020.
 - Member of the Scientific Committee of the Twelfth International Conference on Language Resources and Evaluation (LREC 2020), May 13-15 2020.
 - Member of the Program Committee of the 2019 Conference on Empirical Methods in Natural Language Processing and 9th International Joint Conference on Natural Language Processing (EMNLP-IJCNLP2019), Hong Kong, November 3-7 2019.
 - Member of the Program Committee of the 57th Annual Meeting of the Association for Computational Linguistics (ACL-2019), Florence, Italy, July 28-August 2 2019.
 - Member of the Scientific Committee of the Eleventh International Conference on Language Resources and Evaluation (LREC 2018), Miyazaki, Japan, May 7-12 2018.
 - Member of the Program Committee of the Seventh International Workshop on Health Text Mining and Information Analysis (LOUHI 2016), Austin, Texas, November 5 2016.
 - Member of the Scientific Committee of the Tenth International Conference on Language Resources and Evaluation (LREC 2016), Portorož, Slovenia, May 23-28 2016.
 - Member of the Program Committee of the Sixth International Workshop on Health Text Mining and Information Analysis (LOUHI 2015), Lisbon, Portugal, September 17 2015.
 - Member of the Scientific Committee of the Ninth International Conference on Language Resources and Evaluation (LREC 2014), Reykjavik, Iceland, May 28-30 2014.
 - Member of the Review Committee of the 4th Workshop on Statistical Parsing of Morphologically Rich Languages (SPMRL 2013), Seattle, Washington, October 18-21 2013.

- Reviewer for the 6th International Joint Conference on Natural Language Processing (IJCNLP 2013), Nagoya, Japan, October 14-18, 2013.
- Member of the Review Committee of the ACL 2012 Joint Workshop on Statistical Parsing and Semantic Processing of Morphologically Rich Languages (SP-Sem-MRL 2012), Jeju, Republic of Korea, July 12 2012.
- Member of the Program Committee of the 50th Annual Meeting of the Association for Computational Linguistics (ACL-2012), Jeju, Republic of Korea, July 9-11 2012.
- Member of the Program Committee of *SEM 2012, First Joint Conference on Lexical and Computational Semantics, Montreal, Canada, June 7-8 2012.
- Member of the Scientific Committee of the Eighth International Conference on Language Resources and Evaluation (LREC 2012), Istanbul, Turkey, May 23-25 2012.
- Member of the Review Committee of the Second Workshop on Statistical Parsing of Morphologically Rich Languages (SPMRL 2011), Dublin, Ireland, October 6 2011.
- Member of the Program Committee of the 49th Annual Meeting of the Association for Computational Linguistics (ACL-2011), Portland, Oregon, June 19-24 2011.
- Member of the Program Committee of the 48th Annual Meeting of the Association for Computational Linguistics (ACL-2010), Uppsala, Sweden, July 11-16 2010.
- Member of the Review Committee of the First Workshop on Statistical Parsing of Morphologically Rich Languages (SPMRL 2010), Los Angeles, California, June 5 2010.
- Member of the Program Committee of Human Language Technologies: The 11th Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL-2010), Los Angeles, California, June 2-4 2010.
- Member of the Scientific Committee of the Seventh International Conference on Language Resources and Evaluation (LREC 2010), La Valletta, Malta, May 19-21 2010.
- Member of the Program Committee of the Joint conference of the 47th Annual Meeting of the Association for Computational Linguistics and the 4th International Joint Conference on Natural Language Processing of the Asian Federation of Natural Language Processing (ACL-IJCNLP 2009), Suntec, Singapore, August 2-7 2009.
- Member of the Program Committee of the 12th Conference of the European Chapter of the Association for Computational Linguistics (EACL-2009), Athens, Greece, March 30 - April 3 2009.
- Member of the Program Committee of the 22nd International Conference on Computational Linguistics (COLING 2008), Manchester, UK, 18-22 August, 2008.
- Member of the Program Committee of the 46th Annual Meeting of the Association for Computational Linguistics (ACL-2008), Columbus, Ohio, June 15-20 2008.
- Member of the Scientific Committee of the Sixth International Conference on Language Resources and Evaluation (LREC 2008), Marrakech, Morocco, May 28-30 2008.
- Member of the Program Committee of the 45th Annual Meeting of the Association for Computational Linguistics (ACL-2007), Prague, Czech Republic, June 25-27 2007.
- Reviewer for the Twentieth International Joint Conference on Artificial Intelligence, Hyderabad, India, January 6-12 2007.
- Member of the Program Committee of the joint conference of the International Committee on Computational Linguistics and the Association for Computational Linguistics (Coling/ACL2006), Sydney, Australia, July 17-21 2006.
- Member of the Programme Committee of the Workshop on Information Extraction Beyond The Document, Sydney, Australia, July 22 2006.
- Member of the Programme Committee of the 11th Conference of the European Chapter of the Association for Computational Linguistics (EACL-2006), Trento, Italy, April 3-7 2006.

- Member of the Programme Committee of the 4th Workshop on ROBust Methods in Analysis of Natural language Data (ROMAND 2006), Trento, Italy, April 3 2006.
- Reviewer for the Nineteenth International Joint Conference on Artificial Intelligence, Edinburgh, Scotland, 30 July - 5 August 2005.
- Member of the Programme Committee of the EKAW 2004 Workshop on the Application of Language and Semantic Technologies to support Knowledge Management Processes, Whittlebury Hall, Northamptonshire, UK, October 8 2004.
- Reviewer for the Eleventh Symposium on String Processing and Information Retrieval, Padua, Italy, October 5-8 2004.
- Member of the Programme Committee of the 3rd Workshop on ROBust Methods in Analysis of Natural language Data (ROMAND 2004), Geneva, Switzerland, August 29 2004.
- Reviewer for the Student Research Workshop of the 42nd Annual Meeting of the Association for Computational Linguistics (ACL-2004), Barcelona, Spain, July 21-26 2004.
- Reviewer for the Special Issue of *IEEE Intelligent Systems* on Advances in Natural Language Processing (appeared in February 2003).
- 41st Annual Meeting of the Association for Computational Linguistics (ACL-2003), Sapporo, Japan, July 7–12 2003.
- 40th Annual Meeting of the Association for Computational Linguistics (ACL-2002), Philadelphia, Pennsylvania, July 7–12 2002.
- Member of the Reviewing Committee of the Special Issue of *Natural Language Engineering* on Robust Methods in Analysis of Natural Language Data (appeared in June 2002).
- Member of the Programme Committee of the 39th Annual Meeting of the Association for Computational Linguistics (ACL-2001), Toulouse, France, 6–11 July 2001.
- Member of the Programme Committee of the 1st Workshop on ROBust Methods in Analysis of Natural language Data (ROMAND 2000), Lausanne, Switzerland, October 19–20 2000.
- Member of the Programme Committee of the 38th Annual Meeting of the Association for Computational Linguistics (ACL-2000), Hong Kong, 1–8 October 2000.
- Member of the Programme Committee of the 18th International Conference on Computational Linguistics (COLING 2000), Saarbrücken, Germany, 31 July–4 August 2000.

• **Teaching Activities:**

- 2019-2020: lectures on Parsing and Chunking in the course Human Language Technologies at the Cognitive Science MSc at the University of Trento
- 2018-2019: lectures on Parsing and Chunking in the course Human Language Technologies at the Cognitive Science MSc at the University of Trento
- 2017-2018: lectures on Parsing and Chunking in the course Human Language Technologies at the Cognitive Science MSc at the University of Trento
- 2016-2017: lectures on Parsing and Chunking in the course Computational Linguistics at the Cognitive Science MSc at the University of Trento
- 2013-2014: lectures on Parsing and Chunking in the course Computational Linguistics at the Cognitive Science MSc at the University of Trento
- 2012-2013: lectures on Parsing and Chunking in the course Text Processing at the Cognitive Science MSc at the University of Trento
- 2011-2012: lectures on Parsing and Chunking in the course Text Processing of the Master on Human Language Technology at the University of Trento

- 2010-2011: lectures on Information Extraction in the course Text Processing II of the Master on Human Language Technology and Interfaces at the University of Trento
- 2010-2011: lectures on Parsing and Chunking in the course Text Processing I of the Master on Human Language Technology and Interfaces at the University of Trento
- 2009-2010: lectures on Information Extraction in the course Text Processing II of the Master on Human Language Technology and Interfaces at the University of Trento
- 2009-2010: lectures on Parsing and Chunking in the course Text Processing I of the Master on Human Language Technology and Interfaces at the University of Trento
- 2008-2009: lectures on Information Extraction in the course Text Processing II of the Master on Human Language Technology and Interfaces at the University of Trento
- 2008-2009: lectures on Parsing and Chunking in the course Text Processing I of the Master on Human Language Technology and Interfaces at the University of Trento
- 2007-2008: lectures on Information Extraction in the course Text Processing II of the Master on Human Language Technology and Interfaces at the University of Trento
- 2007-2008: lectures on Parsing and Chunking in the course Text Processing I of the Master on Human Language Technology and Interfaces at the University of Trento
- 2005-2006: lectures on Grammars and Parsing in the course Text and Content Processing of the PhD on ICT of the University of Trento
- 2003-2004: lectures on Grammars and Parsing in the course Text and Content Processing of the PhD on ICT of the University of Trento
- 2002-2003: lectures on Information Extraction in the NLP course of the PhD on ICT of the University of Trento
- 2001-2002: lectures on Information Extraction in the NLP course of the PhD on ICT of the University of Trento
- 2000-2001: lectures on Information Extraction in the NLP course of the PhD of the University of Pisa

- **Professional Memberships:**

Member of the Association for Computational Linguistics (ACL) and of the ACL Special Interest Groups on Parsing Technologies (SIGPARSE), on Natural Language Learning (SIGNLL), and on Biomedical Natural Language Processing (SIGBioMed).

- **Languages:**

- Italian: mother tongue
- English: fluent