Carlo Strapparava - short-CV

Fondazione Bruno Kessler
via Sommarive 18, I-38123,
Trento ITALY

url: https://nlplab.fbk.eu/people/carlo-strapparava

Education	Laurea in Computer Science, University of Pisa, 1986. Thesis in theoretical Computer Science in which some extensions of λ-calculi with strong type structures were studied. Title of the dissertation: *Espressività delle strutture di tipo del second'ordine.* (advisor: prof. Giuseppe Longo - now at Ecole Normale Supérieure, Paris)
Research Interests	Natural Language Processing, Lexical Semantics, Word Sense Disambiguation, Affective computing and Persuasive NLP, NLP for Social Science. During my career I matured on a multidisciplinary perspective, covering many topics such as Artificial Intelligence, natural language processing, intelligent interfaces, cognitive science, knowledge-based systems, user models, adaptive hypermedia, lexical knowledge bases, lexical semantics, word sense disambiguation, computational humour and emotion recognition in texts (Affective NLP). Specific attention was put on developing systems with good performance. This is shown by the records of outstanding results in international evaluation campaigns of NLP tasks (e.g. word sense disambiguation, lexical substitution). In the last years, my activity focused on lexical semantics, especially dealing with Semantic Domains, becoming a point of reference in the NLP community, and on setting up and fostering the new field of Affective Natural Language Processing, covering topics such as emotion recognition and generation in texts, computational humour, automatic treatment of persuasive language, creative language.

Research Experience

Positions held	2008 - Present - Senior Researcher at FBK, HLT-NLP research unit 2015 - 2016 - Head of HLT-NLP research unit at FBK (former ITC-irst) 2002 - 2007 - Senior Researcher at ITC-irst, Cognitive and Communication Technologies Division 1991 - 2001 - Researcher at ITC-irst, Cognitive and Communication Technologies Division 1988 - 1990 - Junior Researcher at ITC-irst
Teaching	Scientific habilitation for full professor for *informatics* and *engineering* (Italian scientific fields: **01/B1 09/H1**). 2017 - Present: Professor of the course "Human Language Technologies", University of Trento, Cognitive Science, Center for Mind/Brain Sciences. 2015 – Present: Member of the Doctoral School Committee of the department of Information Engineering and Computer Science, University of Trento 2018 - Tutorial: "NLP for Journalism" - collocated with 11th Language Resources and Evaluation Conference, May 2018, Miyazaki, Japan 2011 - Lecturer at "Autumn School on Computational Creativity", November 7-11, 2011, University of Helsinki, Finland. 2007 - 2016: "Text Processing" - at International Master in Human Language Technology and Interfaces, University of Trento/FBK-irst. 2007 - 2011: "Informatics" - at University of Trento, Cognitive Science, Italy 2007 - EUROLAN summer school on "Semantics, Opinion and Sentiment in Text" - Course "Words, Meanings and Emotions" 2006: 18th European Summer School in Logic Language and Information (ESSLLI-2006), Malaga, Spain - Advanced Course: "Semantic Domains in Natural Language Processing" 1997 -1999: "Programming" - at University of Verona, Computer Science, Italy
International Awards/Prizes	2022 - *AAAI Classic paper honourable mention.* For the paper: R. Mihalcea, C. Corley, and C. Strapparava. Corpus-based and knowledge-based measures of text semantic similarity. In *Proceeding of the 21st conference of American Association for Artificial Intelligence* (*AAAI-06*), Boston, Massachusetts, July 2006.

2016 - Google DNI project on Creative NLP awarded by Google Digital Innovation Fund

2011 - Google Research Award on Natural Language Processing

May 2011 - Best Paper Award: G. Ozbal and C. Strapparava. Automatized memory techniques for vocabulary acquisition in a second language. In Proceedings of the 3rd International Conference on Computer Supported Education (CSEDU 2011), pages 79–87, Noordwijkerhout, The Netherlands.

October 2011 - Nomination for Best Paper Award: C. Strapparava, M. Guerini, and G. Ozbal. Persuasive language and virality in social networks. In Proceedings of Affective Computing and Intelligent Interaction (ACII-2011), Lecture Notes in Computer Science, Memphis, October 2011. Springer.

Evaluation Campaigns	Participation to Evaluation Campaigns: - 2017 Native Language Identification Shared Task – the system ranked 1st among 19 participants teams - English Lexical Sample task (Word Sense Disambiguation) at SemEval-2007: best performing system among 13 participants. - English Lexical Substitution task at SemEval-2007: best performing system among 9 participants. - SensEval-3 (2004) Word Sense Disambiguation competition - the best performing systems for the following tasks: English lexical sample (coarse-grained evaluation - among 37 participants), Italian lexical sample (among 7 participants), Spanish lexical sample (among 9 participants) and Catalan lexical sample (among 7 participants). Best performing unsupervised system for English all-words task.
Collaborations with Journals (Editor, Reviewer)	*Editorial board membership*: IEEE Transactions on Affective Computing, Language Resources and Evaluation. *Reviews activity for the journals (not exhaustive)*: Artificial Intelligence Journal, Cognitive Science Journal, Computational Intelligence, Computational Linguistics, IEEE Intelligent Systems, IEEE Computer, IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Audio Speech and Language Processing, Information Science, International Journal of Human-Computer Studies, Journal of Natural Language Engineering, Research on Language and Computation. *Journal recent guest editor* - Guest editor (with Marco Gori and Ramon Lopez de Mantaras) of Annals of Mathematics and Artificial Intelligence, to be published in 2019. - Guest editor (with Diana Inkpen) of Computational Intelligence Journal for the Special Issue on "Computational Approaches to Analysis of Emotion in Text", volume 29, number 3 (August 2013). - Guest editor (with Katrin Erk) of Language Resources and Evaluation Journal for the Special Issue on "Computational Semantic Analysis of Language", volume 47, number 3, (September 2013).
Chair and Memberships	More than 250 participations to Program Committees of international conferences. *Selected chair activity*: - Senior Program Committee Member of 33rd International Joint Conference on Artificial Intelligence (IJCAI-2024) - Senior Program Committee Member of 31st International Joint Conference on Artificial Intelligence (IJCAI-2022) - Senior Program Committee Member of 33nd AAAI Conference on Artificial Intelligence (AAAI-2019) - Organizer of the 10th Workshop on Computational Approaches to Subjectivity, Sentiment & Social Media Analysis (WASSA 2019), Minneapolis USA, 2019 - Organizer (with Octavian Popescu) of the LREC Workshop "Natural Language Processing meets Journalism", Miyazaki, Japan, 2018 - Organizer (with Octavian Popescu) of the EMNLP Workshop "Natural Language Processing meets Journalism", Copenhagen, Denmark, 2017 - Organizer (with Larry Birnbaum and Octavian Popescu) of the IJCAI Workshop "Natural Language Processing meets Journalism", New York, 2016

- Area Chair for NLP and Creativity area at the 51st Annual Conference of the Association for Computational Linguistics (ACL-2013)
- Area Chair for Linguistic Creativity area at the 49th Annual Conference of the Association for Computational Linguistics (ACL-2011)
- Area Chair for NLP Applications at Conference on Empirical Methods in Natural Language Processing (EMNLP-2009).
- General chair (with Katrin Erk) of SemEval-2 Evaluation Exercises on Semantic Evaluation (2007-2010).
- Area Chair for Word Senses at Conference on Empirical Methods in Natural Language Processing (EMNLP-2007).
- Executive Board member of SIGLEX, a Special Interest Group on the Lexicon of the Association for Computational Linguistics (2007-2010).
- SemEval-1 (2007): Task organizer (with Rada Mihalcea) of task14: Affective Text.
- Organizer (with Diana Inkpen) of the NAACL-2010 Workshop on Computational Approaches to Analysis and Generation of Emotion in Text

Collaboration with Governmental Institutions

- Reviewer for European Commission - DG for Communications Networks, Content and Technology
- Reviewer for Ireland Science Foundation
- Reviewer for European Coordinated Research on Long-term Challenges in Information and Communication Sciences and Technologies (CHIST-ERA)

Research grants

During the whole career, participation to more than 20 funded projects (funded by European Commission, Italian Government FIRB, Autonomous Province of Trento).

Licenses

License of WordNet-Affect (distributed along with WordNet Domains) http://wndomains.fbk.eu (~3600 licenses, since 2004).

License of CORPS (A CORpus of tagged Political Speeches), freely distributed for research purposes. http://hlt.fbk.eu/corps (~ 250 distributions, since 2009).

License of SENSICON, a sensorial lexicon that associates English words with the five human senses https://hlt-nlp.fbk.eu/technologies/sensicon (~ 60 distributions, since 2015).

Publications

7 books (1 monograph + 6 edited books), 14 book chapters, more than 43 international journals. During my career, I produced more than 250 scientific reviewed publications, touching many fields of NLP. For a list of selected publications please look at the site http://www.carlostrapparava.com/papers/Publications.html