

CURRICULUM VITAE ET STUDIORUM

Dr. Alessandro Oltramari

CONTACT INFORMATION

Name: Alessandro Oltramari

Date of birth: 12 May 1976

Sex: Male

Citizenship: Italian

Civil Status: unmarried

E-mail: oltramari@loa-cnr.it (primary); oltramale@gmail.com

Homepage: www.loa-cnr.it/oltramari

Mobile Phone: +39 338 9560585

Home/Mailing address: Corso Fogazzaro 204, 36100, Vicenza (VI), Italy

EDUCATION

- **2006 PhD in Cognitive Science**, University of Trento (Italy),
“Hybridism in Cognitive Science and Technology – Foundational and Implementational issues”
Advisor: Prof. Liliana Albertazzi (Cognitive Science Department, University of Trento, Trento, Italy)
Co-advisor: Nicola Guarino (Laboratory for Applied Ontology, LOA ISTC-CNR, Trento, Italy)

Abstract:

In this thesis I tried to show how some relevant dimensions of human cognition can be implemented in semantic technologies. In particular, I claimed that the cognitive meta-model presented (the so-called *Cognitive Matrix*) finds an adequate architecture in the integration between computational lexicons and ontologies. My approach shows the importance of opening *knowledge technologies* to a comprehensive cognitive modelling of information. As my study of emotional concepts and linguistic metaphors pointed out, the mutual interlinks between cognitive structures may enrich and improve existing knowledge resources. The thesis describes the features of an hybrid knowledge base for affective and cognitive domain (including a tentative solution for representing metaphorical information). OWL code of the knowledge base has been provided in the appendix.

- **2000 - Diploma di Laurea in Filosofia** (Master thesis in Philosophy of Science), University of Padua (Italy), "The concept of time in Moritz Schlick's philosophy".
Advisor: Prof. Boniolo (Philosophy Department, Padua).
Final note: 108/110.
- **1995 - Diploma di Maturità Scientifica** (Scientific High School), Liceo Scientifico "P. Liroy", Vicenza (Italy).
Final note: 52/60.

SCIENTIFIC AND PROFESSIONAL EXPERIENCES

September 2007 – Present

Research fellow at LOA-CNR, Trento, Italy (Italian Project TOCAI.IT – Knowledge-oriented technologies for business integration in Internet)
Subject: ***Conceptual Modelling for Business Knowledge***.

March 2009 – September 2009

Research fellow at the Department of Management and Engineering University of Padua, Italy (Italian FIRB Project "New organizational models for Knowledge Management in Extended Enterprise").
Subject: ***"Modeling knowledge Exchange in Extended Enterprise"***

March 2007 – September 2007

Research fellow at Cogito S.r.l.¹ (www.es-cogito.it), Rovereto (Trento), Italy
Subject: ***Development of a semantic network for English and Italian; testing of algorithms for automatic lexicalisation; disambiguation for Q/A systems; machine learning techniques***.

August 2006 – March 2007

Research fellow at LOA-CNR, Trento, Italy (Italian Project TOCAI.IT – Knowledge-oriented technologies for business integration in Internet)
Subject: ***Conceptual Modelling for Business Knowledge (creation of a hybrid resource for modelling lexical and ontological business information)***.

March 2005 – May 2005 & August 2006 – October 2006:

Visiting Research Associate at Princeton University (U.S.A.), Psychology Department, Cognitive Science Laboratory (WordNet group).
Subject: ***Semantic analysis and conceptual restructuring of WordNet lexical database***.

¹ Satellite company of Expert System Group (www.expertsystem.it).

August 2004 – July 2006:

Research fellow at LOA-CNR, Trento, Italy (Project METOKIS – Methodology and tools infrastructure for the creation of knowledge units & Project MOSTRO – Modelling Security and Trust Relationships within Organizations)

Subject: ***Development of ontologies and computational lexicons for meaning negotiation (building of a LOOM knowledge base for lexical and ontological information)***

July 2003 – July 2004:

Research fellow at LOA-CNR, Trento, Italy (Italian Project TICCA – Cognitive technologies for the interaction and cooperation of artificial agents).

Subject: ***Formal tools for the analysis and the development of linguistic resources (design and implementation of formal models for evaluating and building computational lexicons)***

February 2001 – June 2003:

Research fellow at LADSEB-CNR, Padua, Italy (Eureka Project I2235 – Intelligent Knowledge Fusion).

Subject: ***Formal tools and ontological analysis of linguistic resources (study and ontological analysis of state-of-the-art computational lexicons)***

October 2000 – January 2001:

Research fellow at LADSEB-CNR, Padua, Italy.

Subject: ***Applying Guarino and Welty's OntoClean methodology to lexical resources - Conceptual Analysis of Princeton WordNet Top-Level.***

SUMMER SCHOOLS AND INTERNSHIPS

Bologna, Italy, 8-12/07/02

EASSS 2002, The Fourth European Agent Systems Summer School

Edinburgh, Scotland, 7-11/08/05

ESSLI 2005, European Summer School in Logic, Language and Information

PUBLICATIONS

- **Conferences, Journals, Books.**

- [1] R. Ferrario, A. Oltramari (Editors), 2009. *Formal Ontologies Meet Industry*. IOS Press.
- [2] R. Ferrario, A. Oltramari. Proceedings of FOMI 2009 – Preface. In *Formal Ontologies Meet Industry*, pp. v-vii, IOS Press 2009.

- [3] Huang, Calzolari, Gangemi, Lenci, Oltramari, Prévot (Editors), 2010. *Ontology and the Lexicon*. Cambridge University Press.
- [4] Prévot, Oltramari, Borgo, 2010. *Interfacing ontologies and lexical resources*. In Huang, Calzolari, Gangemi, Lenci, Oltramari, Prévot (Editors), Chapter 11, pp. 229-245. *Ontology and the Lexicon*. Cambridge University Press.
- [5] Oltramari, Gangemi, Huang, Calzolari, Lenci, Prévot, 2010. *Synergizing Ontologies and the Lexicon: a roadmap*. In Huang, Calzolari, Gangemi, Lenci, Oltramari, Prévot (Editors), Chapter 5, pp. 91-97. *Ontology and the Lexicon*. Cambridge University Press.
- [6] Prévot, Huang, Calzolari, Gangemi, Lenci, Oltramari. *Ontologies and the Lexicon: A multi-disciplinary perspective*. In Huang, Calzolari, Gangemi, Lenci, Oltramari, Prévot (Editors), Chapter 1, pp. 3-29. *Ontology and the Lexicon*. Cambridge University Press.
- [7] Gangemi, Guarino, Masolo, Oltramari. *Interfacing WordNet with DOLCE: towards OntoWordNet*. In Huang, Calzolari, Gangemi, Lenci, Oltramari, Prévot (Editors), Chapter 3, pp. 47-66. *Ontology and the Lexicon*. Cambridge University Press.
- [8] Shvaiko, Oltramari, Cuel, Pozza, Angelini. *Generating innovation with semantically enabled TasLab portal*. (Forthcoming in) Proc. of ESWC 2010 (7th Extended Semantic Web Conference), 30 May – 3 June, Heraklion (Grecia).
- [9] Oltramari, Vetere, Lenzerini, Gangemi, Guarino. *Senso Comune*. (Forthcoming in) Proc. of LREC 2010 (7th International Conference on Language Resources and Evaluation), 17 -23 May, La Valletta, Malta.
- [10] Ovchinnikova, Vieu, Oltramari, Borgo. *Data-driven and Ontological Analysis of FrameNet for Natural Language Processing*. (Forthcoming in) Proc. of LREC 2010 (7th International Conference on Language Resources and Evaluation), 17 -23 May, La Valletta, Malta.
- [11] Oltramari, Bolisani, 2009. *Formalising Knowledge as a Measurable Economic Asset: an Interdisciplinary Approach*. Proc. of ECKM 2009 (10th European Conference on Knowledge Management), 3-4 September, Vicenza, Italy.
- [12] Ferrario, Oltramari, 2004. *Towards a Computational Ontology of Mind*. In Varzi, Vieu (editors). Proc. of FOIS 2004 (3rd International Conference on Formal Ontology in Information Systems). 4-6 November, Turin, Italy, pp. 267-277, IOS Press.

- [13] Gangemi, Guarino, Masolo, Oltramari, Schneider, 2002. *Sweetening Ontologies with DOLCE*. Gómez-Pérez, Richard Benjamins (editors). Proc. of EKAW 2002 (13th International Conference on Knowledge Engineering and Knowledge Management), 1-4 October, Sigüenza, Spain, pp. 166-181, Lecture Notes in Computer Science, Vol. 2473, Springer-Verlag.
- [14] Gangemi, Guarino, Oltramari, 2001. *Conceptual Analysis of Lexical Taxonomies: The Case of WordNet Top-Level*. Welty, Smith (editors). Formal Ontology in Information Systems. Collected papers from the 2nd International Conference (FOIS2001), 17-19 October, Ogunquit, USA, pp. 285-296, ACM Press.
- [15] Oltramari, 2010. *From lexicon to ontology: the role of cognition*. Computational Intelligence (accepted paper for a special issue – forthcoming).
- [16] Borgo, Ferrario, Masolo, Oltramari, 2009. *Mereogeometry and Pictorial Morphology*. Image – Journal of Interdisciplinary Image Science, n. 5, Chapter 3 of the thematic part “Computational Visualistics and Picture Morphology”. Köln: Herbert-von-Halem-Verlag.
- [17] Gangemi, Guarino, Masolo, Oltramari, 2003. *Sweetening WordNet with DOLCE*. AI Magazine 24, 3, Fall 2003, pages 13-24. AAAI Press.
- [18] Oltramari, Borgo, Catenacci., Ferrario, Gangemi, Guarino, Masolo, Pisanelli, 2003. *Negoziati di significato*. Sistemi Intelligenti, Anno XV, n. 3/ dicembre 2003, pagine 419-428, Il Mulino.
- [19] Masolo, Oltramari, Gangemi, Guarino, Vieu, 2003. *La Prospettiva dell’Ontologia Applicata*. Rivista di Estetica (22), 2003, 170-183, Rosenberg & Sellier.
- [20] Oltramari, 2006. *“LexiPass” methodology: a conceptual path from frames to senses and back*.
- [21] Gangemi, Guarino, Oltramari, Borgo, 2002. *Cleaning-up WordNet’s Top-Level*. Proc. of the 1st International WordNet Conference, 21-25 January 2002, Mysore, India.
- [22] Oltramari, 2005. *Representation, presentation and conceptual schemas*. Proc. of XIII Trieste Symposium on Perception and Cognition, 10th December, Trieste, Italia.

- [23] Ferrario, Oltramari, 2004. *COME (Computational Ontology of Mental Entities)*. Proc. of AISC 2004 (2nd Conference of the Italian Association of Cognitive Science), Ivrea, Italy.
- [24] Oltramari, Gangemi, Guarino, Masolo, 2002. *Restructuring WordNet's Top-Level: The OntoClean approach revisited*. Proceedings of AI*IA (8th Conference of the Italian Association for Artificial Intelligence), 10-13 September, Siena, Italy.

- **Workshops, symposia, technical reports, e-journals,...**

- [25] Bolisani, E. and Oltramari, A. 2009. *Capitalizing Flows of Knowledge: Models and Accounting Perspectives*, Proceedings of IFKAD 2009 (International Forum on Knowledge Asset Dynamics), Glasgow (UK)
- [26] Oltramari, Stellato, 2008. *Enriching Ontologies with Linguistic Content*, Proc. of OntoLex 2008 (Workshop on Ontologies and Lexical Resources), hosted by 6th International Conference on Language Resources and Evaluation, Marrakech (Morocco).
- [27] Oltramari, Vetere, 2008. *Lexicon and Ontology Interplay in Senso Comune*, Proc. of OntoLex 2008 (Workshop on Ontologies and Lexical Resources), hosted by 6th International Conference on Language Resources and Evaluation, Marrakech (Morocco).
- [28] Prévot, Borgo, Oltramari, 2005. *Interfacing Ontologies and Lexical Resources*, Proc. of OntoLex 2005 (Workshop on Ontologies and Lexical Resources), 15 October, Jeju Island, South Korea.
- [29] Oltramari, Gangemi, Guarino, Masolo, 2002. *Restructuring WordNet's Top-Level: The OntoClean approach*. Rodriguez, Suarez Araujo (editors). Proc. of LREC 2002 (The 4th International conference on Language Resources and Evaluation - Workshop OntoLex 2002 – Ontologies and Lexical Resources, 27 May, Las Palmas de Gran Canaria, Spain), pp. 17-22.
- [30] Gangemi, Guarino, Masolo, Oltramari, 2001. *Understanding top-level ontological distinctions*. Gómez-Pérez, Gruninger, Stuckenschmidt, Uschold (editors). Proc. of Workshop on Ontologies and Information Sharing (Seattle, USA) - IJCAI 2001 (23th International Joint Conference on Artificial Intelligence, August 4-5), pp. 26-33, CEUR-WS.org Series.
- [31] Oltramari, Prévot, Borgo, 2005. *Theoretical and practical aspects of interfacing ontologies and lexical resources*. Proc. of SWAP 2005 (2nd Italian Workshop on Semantic Web Applications and Perspectives), 14-16 December, Trento, Italy.

- [32] Ferrario, Oltramari, 2004. *The COM Perspective on Intentional Agents*. Proc. of SWAP 2004 (the 1st Italian Workshop on Semantic Web Applications and Perspectives), 10th December, Ancona, Italy.
- [33] Oltramari, 2007. *The Cognitive Matrix: an hybrid perspective on mind*. Proc. of TSC2007 (International Conference “Towards a Science of Consciousness”), 23-26 July 2007, Budapest, Hungary
- [34] Oltramari, 2002. *The Psychophysical chimaera*. Proc. of TSC2002 (International Conference “Towards a Science of Consciousness”), 8th April, Tucson, USA.
- [35] Trypuz, Oltramari, Vieu, 2007. *Ontology of Actions and Mental Entities*. Proc. of Workshop on “Concepts, Actions and Objects: Functional and Neural Perspectives”, 19-22 April 2007, Rovereto, Italy.
- [36] Masolo, Borgo, Gangemi, Guarino, Oltramari, 2005. *WonderWeb Deliverable D18 – Ontology Library* (technical report).
- [37] Masolo, Borgo, Gangemi, Guarino, Oltramari, Schneider, 2002. *WonderWeb Deliverable D17. The WonderWeb Library of Foundational Ontologies and the DOLCE ontology* (technical report).

Citations/Statistics

Papers:	35	Cites/paper:	37.11	h-index:	14
AWCR:	139.72	Citations:	1299	Cites/author:	299.29
g-index:	35	AW-index:	11.82	Years:	10
Papers/author:	10.17	hc-index:	11	AWCRpA:	33.48
Cites/year:	129.90	Authors/paper:	4.20	hl-index:	3.21
e-index:	31.32	hl,norm:	8	hm-index:	6.02

COURSES, LECTURES AND TALKS

- **Padua, Italy (LADSEB-CNR), 8/02/2001**
Talk: *Conceptual Analysis of WordNet’s top level on the basis of the formal theory developed at LADSEB-CNR.*
- **Ogunquit, USA (FOIS conference), 19/10/2001**
Talk: *Conceptual Analysis of Lexical Taxonomies: The Case of WordNet Top-Level.*
- **Padua, Italy (LADSEB-CNR), 14/05/2002**
Talk: *Linking the IKF Reference Ontology to multilingual lexical resource.*

- **Las Palmas, Canary Islands (Spain), OntoLex Workshop LREC 2002 (Lexical Resources and Evaluation Conference), 27/05/2002**
Talk: *Restructuring WordNet's Top-Level: The OntoClean Approach.*
- **Padua, Italy (Webb.it 2002), 7/07/2002**
Talk: *Professione Ontologo (Being an ontologist).*
- **Budapest, Hungary (International Meeting of Eureka Project E!2235 IKF), 17/10/2002**
Talk: *Ontologies and wordnets.*
- **Trento, Italy (Laboratory for Applied Ontology), 19/02/2003**
Talk: *Towards an Ontology of Cognitive Agents: from mental contents to descriptions.*
- **Padova, Italy (Webb.it 2003), 9/05/2003**
Talk: *Artificial Agents and Ontologies.*
- **Leipzig, Germany (IFOMIS - Institute for Formal Ontology and Medical Information Science), 9-11/06/03**, three-days lecture series about ontologies, lexical resources and artificial agents.
- **Ancona, Italy (Università delle Marche), 18/06/03**
Talk: *From Formal Ontology to Semantic Web.*
- **Trento, Italy (joint workshop IRIT-ISTC-IRST-University of Trento-Laboratory for Applied Ontology), 19/11/03**
Talk: *Towards a Computational Lexicon of Mind.*
- **Ivrea, Italy (Conference of the Italian Association of Cognitive Science), 19/03/04**
Talk: *Towards a Computational Ontology of Mind.*
- **Torino, Italy (FOIS 2004 (Formal Ontology and Information Systems), 04-06/11/04**
Talk: *Towards a Computational Ontology of Mind.*
- **Padova, Italy (GCSP 2004, Comunicazione Parlata e Manifestazione delle Emozioni), 02-12/04**
Talk: *Building Knowledge Resources for Emotional Agents.*
- **Ancona, Italy (SWAP 2004 Semantic Web Applications and Perspective), 10-12/04**
Talk: *The COM (Computational Ontology of Mind) Perspective on Intentional Agents.*

- **Trieste, Italy (XIII Symposium on Perception and Cognition), 17/11/05**
Talk: *Representation, presentation, conceptual schemas.*
- **Princeton, USA - Cognitive Science Lab, Princeton University, 22/03/05**
Talk: *Towards ACKIRA: Affective and Cognitive Knowledge-base for Interaction Resources in Agent technologies.*
- **Hawthorne (NY), USA, IBM Watson Research Center, 25/05/05**
Talk: *ACKIRA: Affective and Cognitive Knowledge-base for Interaction Resources in Agent technologies .*
- **Trento, Italy (Semantic Web and Application Perspectives – SWAP 2005) , 15/12/05**
Talk: *Theoretical and practical aspects of interfacing ontologies and Lexical resources.*
- **Genoa, Italy (Linguistic Resources and Evaluation – LREC 2006), 26/05/06**
Talk: *LexiPass methodology: a conceptual path from frames to senses and back.*
- **Bielefeld, Germany (Processing Text-Technological Resources), 13/03/08**
On the boundary between ontologies and lexical resources
- **Povo (TN), Italy (Fondazione Bruno Kessler), 5/02/09**
Populating Senso Comune with TMEO
- **Porto (Portugal), University of Porto, INESC (Institute of Systems and Computing Engineering of Porto), 28/10/09**
An Hybrid Perspective on Semantics

RELEVANT CONFERENCE PC & REFEREE

Program Committees:

- **LREC 2006, 2008, 2010** (International conference on Language Resources and Evaluation)
- **Workshop @ AI*IA 2006** (10th Conference of the Italian Association for Artificial Intelligence): “Cooperative Construction of Linguistic Knowledge Bases”.
- **Workshop @ ESWC 2008** (5th European Semantic Web Conference): “Knowledge Reuse and Reengineering over the Semantic Web
- **EACL 2009** (12th Conference of the European Chapter of the Association for Computational Linguistics)
- **OntoContent 2009** (4th International Workshop on Ontology Content)
- **1st on the Multilingual Semantic Web @ ISWC 2010** (International Semantic Web Conference)

Reviews for:

- **FOIS 2001, 2004, 2006, 2008, 2010** (International Conference on Formal Ontology in Information Systems)
- **AI*IA 2002, 2004, 2009** (8th, 9th, 11th Conference of the Italian Association for Artificial Intelligence)
- **EKAW 2002** (13th International Conference on Knowledge Engineering and Knowledge Management)
- **IJCAI 2003** (24th International Joint Conference on Artificial Intelligence)
- **KR 2004** (9th International Conference on the Principles of Knowledge Representation and Reasoning)
- **CogSci 2005** (27th Annual Conference of the Cognitive Science Society)
- **COLING 2008** (22nd International Conference on Computational Linguistics)
- **ESWC 2009** (6th Annual European Semantic Web Conference)
- **ISWC 2009** (8th International Semantic Web Conference)
- **Journal of Linguistic Resources and Evaluation**

Organizing Committee:

- Co-organizer of the International workshop *OntoLex (Ontologies and Lexical Resources)*:
 - 2004 (29th May), Lisbon, Portugal
 - 2005 (15th October), Jeju, South Korea
 - 2006 (27th May), Genoa, Italy
 - 2007 (11th November), Busan, South Korea
 - 2008 (31st May, Marrakech, Morocco)
 - 2010 (21-22 Agosto, Beijing, China)
- Co-organizer of the international workshop **FOMI 2009** (4th Workshop on Formal Ontologies Meet Industry, Vicenza, 2nd September)

SCIENTIFIC INTERESTS

- Ontology of action, behaviour and mind
- Human Language Technology & Natural Language Processing
 - Computational lexicons
 - Word Sense Disambiguation
 - Q/A systems
- Affective Computing
 - Emotion recognition in unstructured texts
 - Semantic Annotation of emotional data
 - Computational models of emotions
- Cognitive Semantics
 - Formalization of conceptual schemas
 - Computational aspects of linguistic metaphors
- Foundations of agent technologies
- Ontology-driven methodologies for Knowledge Management

SKILLS

Communication

Good communication skills gained from giving presentations at seminars, international conferences, chairing meetings and dealing with research partners in European and Italian National Projects (please consider also the previous list of *Courses, Lectures and Talks*).

Team Work

Almost 10-years experience as a research fellow in the Laboratory for Applied Ontology and LADSEB-CNR has formed the aptitude of collaborative working, especially with reference to:

- designing and developing ontologies
- interfacing computational lexicons with implemented ontologies.
- writing scientific papers, technical reports & deliverables;
- preparing project proposals, planning and fulfilling project activities;

Collaborative skills have been also improved by spending two visiting periods at the Cognitive Science Laboratory in Princeton University (U.S.A.), where it has been possible to participate to regular activities of the lab, exchanging scientific experience and knowledge with the members of WordNet research group (headed by Dr. Christiane Fellbaum and originally founded by George A. Miller).

Languages

Italian (mother tongue); English (fluent); French (basic).

Computing

Description Logics: OWL.

Inference Engines: Racer, Fact ++.

Ontologies: DOLCE, SUMO, OpenCyc.

Special expertise of the following linguistic and hybrid resources (theory, design, architecture, implementation, ontology-driven analysis):

- **GUM** (Generalized Upper Model)
- **Mikrokosmos**
- **SENSUS**
- **wordnets** (Princeton WordNet, EuroWordNet, SIMPLE, MultiWordNet, Italian Sensigrafo, BalkaNet, Arabian WordNet, PersiaNet,...)
- **FrameNet**

Author of more than thirty papers in the field of computational linguistics and applied ontology and co-promoter of the *OntoLex* workshop series (2004-2005-2006-

2007-2008-2010), whose aim is to support the scientific community in the study and realization of hybrid resources interfacing computational ontologies and lexicons.