

Curriculum vitae

LAURA PO

Web page <https://sites.google.com/view/laurapo>

Education

2009 Ph.D. in Computer Engineering and Science from the University of Modena and Reggio Emilia with a thesis entitled "Automatic Lexical Annotation: an effective technique for dynamic data integration". The thesis demonstrates how lexical annotations enhance data integration as well as ontology mapping.

2005 Magna cum laude "Laurea" degree in Computer Engineering from the University of Modena and Reggio Emilia.

Employment

2018 –present Member of the College of the *INFORMATION AND COMMUNICATION TECHNOLOGIES* (www.ict.unimore.it) *Doctoral* School at the University Modena and Reggio Emilia.

2010 -present Assistant Professor at the "Enzo Ferrari" Engineering Department of the University of Modena e Reggio Emilia

2009 -present Co-founder and member of the Scientific Committee of DataRiver srl (<http://www.datariver.it>), a Spin-Off company that offers cutting-edge software solutions in Data Integration, Clinical Data Management, Semantic Web, Information Management, Business e Location Intelligence. DataRiver is recognized as a Qualified Organization for Research and Innovation by the Emilia-Romagna High Technology Network.

2006 -present Member of the Big Data Research Group (<http://www.dbgroup.unimo.it/>) of the Department of Engineering "Enzo Ferrari" in Modena

2008 Visiting Researcher at the Knowledge Media Institute, Milton Keynes (UK), where I worked in collaboration with Prof. Enrico Motta and Prof. Marta Sabou
<http://kmi.open.ac.uk/people/member/laura-po>

Awards and Associations

2008 Winner of the first prize for the Best Doctoral Research Proposal Symposium at Natural Language to Information Systems (NLDB) International Conference, London.

2015 Winner of the third prize for the Keystone Data Hackathon Challenge, as part of the 1st KEYSTONE Training School organized within the COST Action IC 1302 project.

Research Interests

- Big Data, Data Science, Data Linking;
- Linked (open) data, Linked Data Profiling, Visual Querying, Visualization & Summarization of big datasets, Information Visualization, Data Exploration;
- Database systems, Web and information systems, Data Integration, Semantic Interoperability;
- Knowledge and Ontology Design, Semantic Technologies, Metadata Extraction, Data source annotation, Word Sense Disambiguation, Topic Detection, Natural language processing applied to structured and semi-structured data sources;
- Open Data, Open Government and Smart Cities.

Research Projects

2018- 2020 Project leader of the european project “TRAFair- Understanding Traffic Flow to Improve Air Quality” co-financed by INEA CEF Telecom as part of the call CEF-TC-2017-3 Public Open Data. This project aims at providing real time estimations on air pollution in the city on a urban scale, developing a service for prediction of urban air quality based on weather forecast and traffic flows, creating urban air quality maps in 6 European cities of different size: Zaragoza, Florence, Modena, Livorno, Santiago de Compostela, Pisa.

2017- present Task Leader of the European Project Re-search Alps [2017-2019] (<http://researchalps.eu/>) co-financed by INEA CEF Telecom as part of the call CEF-TC-2016-2 Public Open Data. My responsibility on this project is the leading of the collection and analysis of the available data describing the laboratories existing in the seven countries of the EU Strategy for the Alpine Region (EUSALP).

2018- present Project leader of the internal project “H-BOLD - Building high level visualizations on Big Open Linked Data” [2018-2019] funded by the "Enzo Ferrari" Engineering Department. This project aims to develop a generic tool for the exploration and multilevel analysis of Linked Open Data by addressing the challenge of managing large datasets. H-BOLD will allow an efficient multi-level exploration, offering different views at different levels of abstraction of LOD datasets that expose a SPARQL endpoint. At a glance, users will have an overview of big linked data (in the order of the millions of triple RDF) through their interaction and the dynamic adaptation of the graph representing the dataset, users might perform an incremental exploration of the dataset.

2018 – present Scientific Advisor for an annual research grant for a Corporate Intelligence Data Scientist on "Creating value for companies by the analysis of Big Data" funded by the Emilia Romagna Region (ITALY) in collaboration with the international company, Expert System spa.

2013-2017 Participant in the KEYSTONE semantic KEYword-based Search on sTructured data sOurcEs European COST Action IC1302. During the COST Action, I focused on two research topics: Linked Open Data and Topic Detection on News. I coordinated the definition of a formal method to unveil the implicit structure of a LOD dataset by building a Schema Summary that is a concise profile for the LOD source. The Schema Summary contains all the main classes and properties used within the datasets, whether they are taken from external vocabularies or not, and is conceivable as an RDFS ontology. I participated in the development of the tool LODeX that is able to make use of the Schema Summary for enabling the visualization, navigation and querying of LOD by un-skilled users. Actually, LODeX indexes more than 100 datasets. I also collaborated with Raquel Trillo Lado, from the University of

Zaragoza, for detecting the main topics on multichannel publications from Italian newspapers. We study the use of multiple communication media to achieve a comprehensive overview of the information that reaches the end users. A graph analytical approach, called Keygraph, has been applied on a set of very heterogeneous documents such as the news published by 20 newspapers on several on-line channels.

2016-present Technical leader for the project "Open linked data Youth Observatory of the Emilia-Romagna Region" funded by the Municipality of Modena, Italy. The main partners of this project are the Municipality of Modena, the Emilia Romagna region and the DBGROUP of the Engineering Department "Enzo Ferrari". My role was to coordinate the discovery and the integration of relevant data sources for youth policy. I lead the first phase of searching for relevant open data sources (local, regional, national and international data sources). I coordinate the second phase that involved the use of ETL data integration systems to transform and merge the sources, and the last phase that led to the publication of the resulting value-added information as Linked Open Data on the Web. <http://www.dbgroup.unimo.it/site2012/index.php/component/content/article/2-uncategorised/90-ld-osservatoriogiovani>

2006-2008 Participant in the "STASIS: Software for Ambient Semantic Interoperable Services" European project funded by IST FP6 STREP

2006-2008 Participant in the "NeP4B: Networked Peers For Business" Italian project funded by the Italian Ministry of Education, Universities and Research (MIUR) under the FIRB 2005 call

Invited Talks and Tutorials

2018 I will deliver a tutorial on "Challenges and Opportunities with Big Linked Data Visualization" at the 17th International Semantic Web Conference (ISWC 2018), Monterey, USA, October 2018 <http://iswc2018.semanticweb.org/workshops-tutorials/>

2017 Speaker at 3rd Keystone Training School "Keyword Search in Big Linked Data" (<http://ifs.tuwien.ac.at/keystone.school/>) organized within the COST action IC1302 held from 21st to 25th August 2017 at Vienna in Austria. During my school my role was to present an introduction to the methods of exploring and displaying Big Linked Open Data.

2016 Speaker at the 2nd Keystone Training School "Keyword Search in Big Linked Data" (<https://eventos.citius.usc.es/keystone.school/>) organized within the COST action IC1302 held from 18 to 22 July 2016 in Santiago de Compostela in Spain. During the school my role was to present an introduction to Linked Open Data and tools for exploring, displaying and querying LOD sources.

Participation in Program Committee

2016- present Member of the scientific program committee of the International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR-Short) <http://sigir.org/sigir2017/>

2017- present Member of the scientific program committee of the International Symposium Advances in Artificial Intelligence and Applications (AAIA) <https://fedcsis.org/2017/aaia>

2017- present Member of the Sii-mobility Advisory Group, the Sii-Mobility is a national Smart City project for transportation and land mobility, it supports integrated interoperability services for citizens and public administrations. www.sii-mobility.org/

2016- present Member of the scientific committee of the Mobile App Development mini-track program held at the Hawaii International Conference on System Sciences (HICSS)
<http://hicss.hawaii.edu/>

2015, 2017 Member of the scientific program committee of the International Conference on Knowledge Engineering and Ontology Development (KEOD) <http://www.keod.ic3k.org/>

2016 Organizer of the "Open Data Day" day of scientific diffusion held in Modena 5 March 2016 and sponsored by the University of Modena and Reggio Emilia as part of the International Open Data Day initiative www.dbgroup.unimore.it/opendataday

Other Expertise

2018 Member of the Editorial Advisory Board of the book "Big Data Governance and Perspectives in Knowledge Management" that will be published by IGI Global (www.igi-global.com) and release in July 2019

2018 Guest Editor for the Special Issue "Smart Data and Semantics in a Sensor World" that will be published by Applied Sciences and release by the end of 2018.

2018 Session Chair at the 13th International Workshop on Semantic and Social Media Adaptation and Personalization (SMAP 2018) for the Special Session on "Navigation and Understanding of Big Linked Data" that will be held in Zaragoza (Spain), September 6-7, 2018, <http://smap2018.unizar.es/>

2006-present External Reviewer for several international journals in the field of information and knowledge management (such as: Knowledge-Based Systems, [Eviset] International Journal of Information Management, [Eviset] Journal Applied Computing and Informatics, LNCS Transactions on Computational Collective Intelligence, International Journal of Distributed Sensor Networks, Computers in Human Behavior - Elsevier)

2016 Member of the Commission for the Ph.D. Defence in "Computer Science, Systems and Telecommunications" - CV in "Telematics and Information Society" at the Doctorate School of Engineering of the University of Florence - Cycles XXVII and XXVIII.

Modena, 17/09/2018