



Europass Curriculum Vitae



Personal information

First name / Surname **Mario Mezzanica**
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Telephone +39.02.6448.5887 Telephone +39.02.6448.5887
Nationality Italian
Date of birth June 27th, 1959
Gender Male

Work experience

Academic activity – Teaching

2005 - Today Associate Professor of “Information System”
Employer University of Milan Bicocca – Department of statistics and quantitative methods.
Type of business or sector Teaching and Research activities

2005 - Today Scientific Director of CRISP – Interuniversity Research Centre on Public Services,
Employer University of Milano-Bicocca
Type of business or sector Research

2006 - Today Member of the Scientific and Technical Committee of CEFRIEL – ICT
Employer Centre of Excellence For Research, Innovation, Education and industrial Labs partnership.

2012 - Today Member of the Scientific Committee of the European Network on Regional Labour Market Monitoring
Employer The Network on Regional Labour Market Monitoring is a European-wide, non-profit organisation to further concepts and instruments in the field of Regional Labour Market Monitoring.
Type of business or sector Research

1999-2000 Lecturer “Training course for the management of firm data”, by University of Milan-Bicocca, Faculty of Statistics and in collaboration with Lombardy Region.
2002 Lecturer “The analysis of formation needs in labour market”, by University Cattolica del Sacro Cuore, Politecnico of Milan and University of Milan Bicocca.
2007-2008 President of the Coordination Committee and lecturer in the specialization course “Services Science and Public Governance”, in University of Milan-Bicocca

Postgraduate Masters
2005- 2009 Teacher at the master “Information and Communication Technology (ICT) Management”, by University of Milan Bicocca.

2006 Teacher at the master “Mediation expert in the process of approaching to job”, by University of Genova
 Since 2010 Director of the Master “Business Intelligence and Big Data Analytics”, by University of Milan Bicocca.

Management Courses

2001-2002 Lecturer “Health management – the information system in health” by University of Milan Bicocca in collaboration with Il Sole 24 ore and Maugeri Foundation.

2002 Lecturer “Professional training to directors of complex structures in the sector of Health – informational systems in Health”, by Scuola di Amministrazione Aziendale of University of Turin.

Academic activity – Research

The main area of interest is Information Systems where he has carried on several research activities that have been published on scientific journals, conference proceedings, and books both at international and national level.

Directional informative systems and datawarehouse

This research area studies and analyses the methodological aspects of design and management of institutional data (both public or private) to maximise the informational efficiency of the decisional process. The approach and methodologies have been applied to several different uses focusing on the needs of individual organizations. Furthermore, a particular attention is given to the “knowledge” needs of public services, that require statistic methodologies and techniques – Statistical Informative System and data mining.

In this setting, as scientific director of CRISP, he has developed a methodology for processing and analysing administrative data on labour market, data for supporting VET activities and evaluation, and Web job vacancies. Here, CRISP guided several projects for top regions in Italy, and has conducted research with several partners at European level.

Knowledge Discovery

Recently, the rapid diffusion of Information Systems has made available a huge amount of data, that require the use of KDD techniques and methodologies for extracting trustable and effective knowledge from the data, as they represent a valuable value for enterprises and PAs for deeply understand social, economic and business phenomena. His research in this direction has covered all the main step of the KDD process, which includes the data selection and integration; data preprocessing, transformation and cleaning; (statistical) data mining and multidimensional data visualization as well (e.g., parallel-coordinates). Specifically, he investigated automatic techniques for big data cleaning (i.e., based both of AI and ETL methods) applying it successfully to the labour market domain.

Furthermore, he devoted a particular attention to the use of ontologies and information extraction techniques for dealing with unstructured and weakly-structured data (e.g., Web sources). Towards this direction, his research also includes the use of semantic-based reasoning for extracting and producing linked-open data (LOD) from semi-structured data.

Collaborations with Organisations and Institutions

Several research activities, national and international, have taken place, together with participations in technical and scientific committees activated by public Institutions, aimed at the study of new models and methodologies of design, monitor and evaluation of innovation projects with relevant impact on models of supply and management of public utility services based on new technologies I& CT. In several projects he holds a scientific coordination role in the project or in the research unit.

European Network on Regional Labour Market monitoring

Since 2007 he is research partner European Network on Regional Labour Market Monitoring. The network develops research initiatives on regional labour market across European countries promoting methods for the study research and analysis of regional labour market monitoring.

Within this network he has contributed also to the "Initiative for Networking Regional and Local Labour Market Observatories" within which he has contributed to the analysis of data on regional and local employment and professional development, on unemployment and inactivity as well as vocational and further education.

Committees Membership

- Member of the Coordination committee of the "Borsa Continua Nazionale del Lavoro (BCNL)" of Lombardy Region, Veneto Region and The Italian Ministry of Labour and Social Security
- He is member of the Editorial Board of International journals and conferences in the Artificial Intelligence and Information System fields (e.g., Applied Intelligence, DATA, SEBD)
- He is chair and organiser of the KomIS special session (Knowledge Discovery meets Information Systems: Experiences and lessons learned dealing with real-life scenarios) at DATA conference, held in Vienna, Austria, 2014. He is also chair of the KomIS 2015 (Colmar, France, July 2015)
- He held responsibility roles in the steering committees of a European research projects as SEEMP (Single European Employment Market-Place), ARLI (Achieving National and Regional Impact) and National research project as well (Decision Theater - Smart Cities and Communities and Social Innovation MIUR).
- He has partnered with the role of advice and coordination in several projects for innovation of public services at both national and regional level, working with the Italian Presidency of the Council of Ministers, the Italian Ministry of Labour and Social Security, the ISTAT (Italian National Institute for Statistics), the AIPA (Authority for Information Technology in Italian Public Administration), the Italian Ministry of Economy and Finance, CONSIP (Central Public Procurement Agency, a public stock company owned by Ministry of the Economy and Finance), as well as the main Italian Regions as Lombardy, Veneto, and Emilia Romagna

Award and Grant

- [2008] Winner of the IBM Faculty Award on SSME - Service Sciences Management Engineering
- [2013] Best paper award at the Human-Computer Interaction and Knowledge Discovery, 1-3 July 2013, Maribor, Slovenia, with the paper "Inconsistency Knowledge Discovery for Longitudinal Data Management: A Model-Based Approach," published at SouthCHI13 special session on Human-Computer Interaction & Knowledge Discovery, Lecture Notes in Computer Science, vol. 7947
- [2014] Best paper award at the DATA 2014, International Conference on Data Management Technologies and Applications, Vienna 28-30 August 2014, with the paper "Improving Data Cleansing Accuracy: A model-based Approach", In Proceedings of the 3rd International Conference on Data Technologies and Applications (DATA) (pp.189-201). Insticc.

Education and training

Dates
Title of qualification awarded
Name and type of organisation providing education and training

1985
Degree in Electronic Engineering
Politecnico di Milano

(Selected) Research Projects

In all the projects below (in the field of Labour Market) he has been involved as *Coordinator*.

- **Real-time labour market information on skill requirements.** The project aimed at developing a working prototype for the Cedefop Agency. The purpose of the contract was (i) to explore the feasibility of using online sources of LMI to identify skill needs and changing skill requirements across occupations in Europe in real time and (ii) to develop, implement and evaluate a working prototype system (Jan2015-May2016).
- **OMLRL.** The project has focused on the strengthening of the production structure of the Labour Market Observatory. The aim of the project is in knowledge generation for supporting the decision making process, focusing on the labour market policy definition. A model for data analysis has been defined based on administrative data sources, by obtaining a statistical knowledge base exploited for supporting the generation of new statistical indicators (2009-2014).
- **CSI Piemonte:** The project has focused on the study and definition of innovative data models for the Labour Market through the integration of several (external) Labour Market data sources. A Statistical Information System for decision making support has been realised, together with several reports concerning the analysis of the labour market dynamics at territorial level (2012-2014).
- **SEEMP (Single European Employment Market-Place).** It is a European research project within the 6th FP. The project has dealt with the realisation of distributed architecture - through semantic-based reasoning techniques - to allow labour market operators of several participating countries to share relevant information about job demands and offers, by dealing with the different languages and information representation issues. Furthermore, a DW for the decision support system has been generated as (one of) the outcomes of the project (2006-2009).
- **AMeRiCA.** The project was born from the collaboration between the Milan municipality and the Department of Statistics of the University of Milan-Bicocca. The project is concerned with the improvement of (socio-economic) aspects related to municipality administrative datasets by supporting the decision making for active policies. To this end, a Statistical Information System has been realised that allows one to (1) create statistical descriptive analyses and (2) compute statistical indicators for supporting the decision making on the basis of multivariate data models (2003-2010).
- **OMdLF.** The project has been devoted to the realisation of the Labour Market Observatory based on a federated data model for the enhancement of human capital. To this end, the project has dealt with the data model integration of several data sources (both statistical and economical), that has been then analysed for the generation of indicators for supporting the decision making activities in the context of active policy design, educational and training paths as well (2009-2010).
- **The Elisa Project (Statistical Information System for the Labour Market of the Milan Province).** The project is aimed at realising a statistical information system - through open-source solutions - for studying and monitoring the labour market dynamics with the aim to enable policy makers to plan new policies timely taking into account the labour market changes. The project has exploited the informative power of several administrative data sources by focusing on local labour markets, with the goal to overcome the lack of information provided by the official and traditional statistical sources (2008-2009).
- **ARLI (Achieving National and Regional Impact).** It is a EU founded project (PROGRESS Programme) which was aimed at improving the skills governance and provision of labour market intelligence at European, national, regional and local level, enhancing the involved stakeholders' ability to anticipate skills supply and demand. The project has involved 7 partners from 6 different countries and has included two main tasks: (1) the analysis of the information needs of labour market stakeholders and (2) the exploration of how existing regional and local provision of skills forecasting could be enhanced, including through interrelation with EU Skill Panorama; CRISP realized all the tasks focusing on the Italian national and regional context (2013-2014).
- **Development of the Observatory of the Lombardy Labour Market.** The project has been carried out in collaboration with the Regional Education Training and Employment Agency of Lombardy was the completion of a process that began in 2007 aiming at building a system for monitoring the performance of the labour market through the use of administrative data. Periodic analysis and detailed reporting on the performance of the labour market, in terms of general trend, professions and skills were also provided. Moreover the project included analysis to support the design and the evaluation of employment policies for specific targets. (2008- 2014)

Personal skills and competences

Mother tongue(s) Italian

Other language

Self-assessment

European level ()***English**

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences

Excellent interpersonal skills both to colleagues and stakeholders

Organisational skills and competences

High organizational and leadership skills

Computer skills and competences

Excellent computer skills

Driving licence

B

Publications (selected)

1. Bergamaschi, S., Carlini, E., Ceci, M., Furletti, B., Giannotti, F., Malerba, D., **Mezzanzanica, M.** ... & Perego, R. (2016). Big Data Research in Italy: A Perspective. *Engineering*,2(2), 163-170.
2. Dusi, S., Fontana, M., Mercurio, F., & **Mezzanzanica, M.** (2016). Analysing the Relevance of ICT Skills on occupations in Web Job Vacancies. In C. Larsen, S. Rand, A. Schmid, P. Holopainen, P. Jokikäärre, K. Kuusela, et al. (edited by), *Analysing the Relevance of ICT Skills on occupations in Web Job Vacancies* (pp. 31-44). München : Rainer Hampp Verlag.
3. **Mezzanzanica, M.**, Dusi, S., Fioni, A., & Graziani, C. (2016). The Lombardy Industries Towards Industry 4.0: Evidences of the Evolution of Occupations and Skills. In *The Lombardy Industries Towards Industry 4.0: Evidences of the Evolution of Occupations and Skills* (pp. 53-67). Hampp, R (Verlag).
4. **Mezzanzanica, M.**, Boselli, R., Cesarini, M., & Mercurio, F. (2015). A model-based evaluation of data quality activities in KDD. *INFORMATION PROCESSING & MANAGEMENT*, 51(2), 144-166, Elsevier.
5. Dusi, S., Mercurio, F., & **Mezzanzanica, M.** (2015). Big Data meets Job Vacancy: Trends, Challenges and Development Directions. In C. Larsen, S. Rand, A. Schmid, M. Mezzanzanica, & S. Dusi (Edited by), *Big Data and the Complexity of Labour Market Policies: New approaches in Regional and Local Labour Market Monitoring for Reducing Skills Mismatches* (pp. 31-44). Rainer Hampp Verlag.
6. Amato, F., Boselli, R., Cesarini, M., Mercurio, F., **Mezzanzanica, M.**, Moscato, V., et al. (2015). Challenge: Processing web texts for classifying job offers. In *Proceedings of the 2015 IEEE 9th International Conference on Semantic Computing, IEEE ICSC 2015* (pp.460-463). Institute of Electrical and Electronics Engineers Inc..
7. Amato, F., Boselli, R., Cesarini, M., Mercurio, F., **Mezzanzanica, M.**, Moscato, V., et al. (2015). Classification of web job advertisements: A case study. In *Proceedings SEBD 2015 - The 23rd Italian Symposium on Advanced Database Systems* (pp.144-151). Domenico Lembo, Riccardo Torlone, Andrea Marrella.
8. **Mezzanzanica, M.**, Boselli, R., Cesarini, M. e Mercurio, F. (2015) A Model-Based Approach for developing Data Cleansing Solutions, *ACM Journal of Data and Information Quality* 5(4), ISSN:1936-1955.
9. Boselli, R., Cesarini, M., Mercurio, F., **Mezzanzanica, M.** (2014). Towards Data Cleansing via Planning. *Intelligenza Artificiale* 8(1), dx.doi.org/10.3233/IA-140061, ISSN: 1724-8035.
10. **Mezzanzanica, M.**, Cesarini, M., Mercurio, F. e Boselli, R. (2014) Longitudinal Data Consistency Verification using Formal Methods, *International Journal of Information Quality*, Vol. 3, N. 3, ISSN: 1751-0457.
11. Boselli, R., Cesarini, M., Mercurio, F., **Mezzanzanica, M.** (2014), A policy-based cleansing and integration framework for labour and healthcare data. In Holzinger, A. and Jurisica, I., (eds.), *Interactive Knowledge Discovery and Data Mining in Biomedical Informatics*, LNCS 8401, Springer, pp.141–168, ISBN 978-3-662-43968-5.
12. **Mezzanzanica, M.**, Boselli, R., Cesarini, M., Mercurio, F., “Improving Data Cleansing Accuracy: A model-based Approach,” in *DATA 2014 – the International Conference on Data Technologies and Applications* (best paper awarded), 2014
13. Boselli, R., Cesarini, M., Mercurio, F. e **Mezzanzanica, M.** (2014) Are the Methodologies for Producing Linked Open Data Feasible for Public Administrations?, In *Proceedings of Special Session in Knowledge Discovery meets Information Systems (KomIS) at DATA2014*, 29-31 August, Vienna, Austria.
14. Boselli, R., Cesarini, M., Mercurio, F. e **Mezzanzanica, M.** (2014) How the Social Media Contributes to the Recruitment Process?, *Proceedings of European Conference on Social Media (ECSM 2014)*, 10-11 July, Brighton, UK, pp. 57-63, ISBN: 978-1-910309-28-5.
15. Boselli, R., Cesarini, M., Mercurio, F. e **Mezzanzanica, M.** (2014) Planning meets Data Cleansing, *Proceedings 24th International Conference on Automated Planning and Scheduling (ICAPS 2014)*, Portsmouth, USA, June 21-26, pp. 439-443, ISBN 978-1-57735-660-8, AAAI Press.
16. Boselli, R., Cesarini, M., Mercurio, F. e **Mezzanzanica, M.** (2014) Data Quality on KDD: a Real-life Scenario, *Proceedings of 22nd Italian Symposium on Advanced Database Systems, (SEBD 2014)*, June 16-18, Sorrento, Italy, pp. 378-385.
17. Boselli, R., Cesarini, M., Mercurio, F. e **Mezzanzanica, M.**, Semantic Annotation of unstructured Wiki Knowledge according to Ontological Models, in *Proceedings of the 1st International Conference on Building and Exploring Web Based Environments (WEB 2013)*, January 27-February 1, 2013, Seville, Spain, pp.75-80, ISBN: 978-1-61208-248-6.

18. **Mezzanica, M.**, Boselli R., "Open Data per l'innovazione dei servizi" in *Statistica & Società (Italian) (Open Data for supporting services innovation)* - ISSN 2282-233X, sezione strumenti, ed. SIS - Società Italiana di Statistica, pp. 48-51, year 2 issue 1, 2013.
19. **Mezzanica, M.**, (edited by), *Ipotesi di lavoro : le dinamiche, i servizi e i giudizi che cambiano il mercato del lavoro (Italian) (Working hypothesis: trends, services and statements changing the labour market)*, Aracne, Roma, ISBN: 978-88-548-6541-9.
20. Boselli, R., Colombo, E., Graziani, C., **Mezzanica, M.**, Ronzoni, G. *L'offerta di lavoro sul Web (Italian) (The labour supply on the Web)* (book chapter), Aracne, Roma, ISBN: 978-88-548-6541-9.
21. **Mezzanica, M.**, and Boselli, R. (2013) *Data... as a Service. Una opportunità per il cambiamento delle politiche e dei servizi (italian) (Data... as a Service. An opportunity for improving policies and services)*, in Di Ciaccio, A., Lanzani, W. (edited by), *Gli analytics come motore per i big data la ricerca e il sistema paese*, Aracne, Roma, pp. 15-27, ISBN: 978-88-548-6324-8.
22. Boselli, R., Cesarini, M., Mercurio, F. e **Mezzanica, M.** (2013) *Can Planning meet Data Cleansing?*, *Proceedings 5th Italian Workshop on Planning and Scheduling*, Torino, 4 dicembre, pp. 63-66.
23. **Mezzanica, M.**, Boselli, R., Cesarini, M. e Mercurio, F. (2013) *Automatic Synthesis of Data Cleansing Activities*, *Proceedings of the 2nd International Conference on Data Technologies and Applications (DATA 2013)*, Reykjavik, Iceland, 29-31 July, pp.138-149, ISBN: 978-989-8565-67-9.
24. Boselli, R., Cesarini, M., Mercurio, F. and **Mezzanica, M.**, (2013) *Inconsistency Knowledge Discovery for Longitudinal Data Management: A Model-Based Approach*, *Proceedings of the 3rd International Workshop Human-Computer Interaction and Knowledge Discovery in Complex, Unstructured, Big Data (HCI-KDD 2013)*, Maribor, Slovenia, 1-3 luglio, (Best Paper Award), LNCS 7947, Springer-Verlag Berlin Heidelberg, pp. 183-194, ISBN: 978-3-642-39145-3.
25. Boselli, R., Cesarini, M., Mercurio, F. e **Mezzanica, M.**, (2013) *Improving Data Cleansing Techniques on Administrative Databases*, *Proceedings of the 13th European Conference on e-Government (ECEG 2013)*, Como, 13-14 giugno, pp. 85-93, ISBN: 978-1-909507-22-7.
26. P.G. Lovaglio, **Mezzanica, M.**, *Classification of longitudinal career paths*, In *Quality & Quantity*, Volume 47, Journal Issue 2 (2013), Page 989-1008, Springer.
27. P.G. Lovaglio, **M. Mezzanica**, *Labour market transitions across occupations of young adults: an analysis using European LFS data*, *Obiettivo Lavoro*, 2012.
28. **M. Mezzanica**, *Geographical Mobility of the Italian Labour Market*, in *Statistica & Società (Nuova Edizione)*, sezione Lavoro, economia, finanza, ed. SIS - Società Italiana di Statistica, pp. 6-7, anno 1 n.1, 2012.
29. P.G. Lovaglio, **M. Mezzanica**, *Classification of longitudinal career paths*, In *Quality & Quantity*, pp. 1-20, Springer Netherlands, 2011.
30. P.G. Lovaglio, S. Verzillo, **M. Mezzanica**, *Estimation of educational returns using University and Labour Market administrative archives*, In *Advances and Applications in Statistics*, Volume 23, Issue 2, pp. 77-105, 2011.
31. **M. Mezzanica**, R. Boselli, M. Cesarini, F. Mercurio, *Data Quality through Model Checking Techniques*, In J. Gama, E. Bradley, & J. Hollmén (edited by), *Advances in Intelligent Data Analysis X*, Berlin, Springer, 2011.
32. M. Fattore, **M. Mezzanica**, *Labour market outcomes of young individuals in Lombardy*, (*Osservatorio regionale sull'esclusione sociale*), *Social Exclusion in Lombardy*, Rapporto 2010, Milano, Guerini e Associati, 2011.
33. C. Graziani, M. Martini e **M. Mezzanica**, *Monitoring geographical mobility from, toward and within a Regional Labour Market: the case of Lombardy*, del libro edited by C. Larsen, R. Hasberg, A. Schmid, M. Bittner, F. Clément, *Measuring geographical mobility Regional Labour Market mobility*, pp. 189-199, Rainer Hampp Verlag, 2011.
34. Cerizza, **M. Mezzanica**, S. Verzillo, *Analysis if occupational path of young graduates*, in P. Grasselli, M. Signorelli, *University-work transition and young employment*, pp. 65-97, Franco Angeli, 2010.
35. C. Graziani, M. Martini e **M. Mezzanica**, *Working Careers of the young persons in Lombardy: tools and models of analysis to support intervention policies*, in C. Larsen, J. Kipper, A. Schmid, *Regional monitoring approaches for the reduction and the prevention of youth unemployment in Europe*, pp. 86-99, Rainer Hampp Verlag, 2010.
36. M. Martini, **M. Mezzanica**, *The Federal Observatory of the Labour Market in Lombardy: Models and Methods for the costruction of a Statistical Information System for Data Analysis*, in C. Larsen, M. Mevius, J. Kipper, A. Schmid, *Information Systems for Regional Labour Market Monitoring - State of the Art and Prospectives*, Rainer Hampp Verlag, 2009.
37. **M. Mezzanica**, *Labour mobility in Lombardy*, *Impresa & Stato*, XX (83/84), pp. 76-79, 2008.

38. P.G. Lovaglio, **M. Mezzanzanica**. *Modelling longitudinal sequences by optimal scaling techniques*. In *Statistica Applicata, Italian Journal of Applied Statistics*, volume 20, 2008, pp 251-272.
39. B. Zavanella, **M. Mezzanzanica**, M. Pelagatti, S. Minotti, e M. Martini, *A Two-Step Approach for Regional Medium-Term Skill Needs Forecasting*, in C. Knobel, B. Kriechel, e A. Schmid *A Regional Forecasting on Labour Markets*, Rainer Hampp Verlag, 2008.
40. M. Cesarini, **M. Mezzanzanica**, P. Maggiolini, M. Fugini, e K. Nanini, *A Solution to Knowledge Management Problems in Information-based Services based on Coopetition. A Case Study Concerning Work Market Services* in D'Atri, M. De Marco, e N. Casalino, *Interdisciplinary Aspects of Information Systems Studies*, pp. 189-195. Springer, 2008.
41. R. Boselli, M. Cesarini, **M. Mezzanzanica**, P. Maggiolini, M. Fugini, e K. Nanini, *Why is True E-Government still difficult to be achieved?*, in A. Mazzeo, R. Bellini, e G. Motta, *E-Government; ICT Professionalism and Competences; Service Science*. Volume 280 di IFIP International Federation for Information Processing, pp. 11-20. Springer, 2008.
42. P. Mariani, **M. Mezzanzanica**, B. Zavanella, *Statistical Information System for Decisional Support to Labour Market Policy*, in A. Di Maio, M. Gallo, B. Simonetti, *Metodi, Modelli e Tecnologie dell'informazione a Supporto delle Decisoni. Parte Seconda: Applicazioni*, pp. 153-159, Franco Angeli, Milano 2007.
43. M. Cesarini, **M. Mezzanzanica**, M. Fugini, e K. Nanini, *Security Challenges in Distributed Web Based Transactions: An Overview of the Italian Employment Information System*, in G. David Garson e Mehdi Khosrow-Pour *Handbook of Research on Public Information Technology*, pp. 209-217. Information Science Reference, dicembre 2007.
44. M. Cesarini, **M. Mezzanzanica**, M. Fugini. *Analysis-sensitive conversion of administrative data into statistical information systems*, *Journal of Cases on Information Technology*, 9(4), pp. 57-81, 2007.