Alessandro Bozzon

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Nationality	Italian

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CV Highlights

Since February 2013, I hold an Assistant Professor (tenure track) position with the Web Information Systems group, at the Delft University of Technology. Since March 2014 I also hold a Faculty Fellow position with the IBM Benelux Centre of Advanced Studies, where I am principal investigator of the "Inclusive Enterprise" research line. I am member of the Delft Data Science initiative, with the "Human-Enhanced Data Management" research line. I am member of the AMS Amsterdam Institute for Advanced Metropolitan Solutions, with the "Social Data Science for Intelligent Cities" research line.

I got my M.Sc. in Computer Science & Engineering at Politecnico di Milano in 2005 (110/110 cum laude) and my Ph.D. in Information Engineering (mark A) in April 2009, with a thesis on Model Driven Development of Search-based Web Applications (advisor prof. Piero Fraternali).

Since the starting of my career, my research focused on the design, implementation and evaluation of novel methods and tools for Web information systems engineering and Web data management. The scientific work, which resulted in high-profile publications, has always been supported by substantial implementation and demonstration efforts, and by a continuos interaction with industry.

During my doctoral studies I have been visiting researcher at the L3S Research Centre (Hannover, Germany, 2007), and at FAST Search & Transfer – now Microsoft Development Centre Norway (Oslo, Norway, 2008). There, I had the opportunity of deepening my knowledge of Web scale and enterprise-class search systems. I had an extensive research collaboration with WebModels S.R.L., a startup of Politecnico di Milano, where I served as research consultant, analyst, project leader in an European project, and lecturer in industrial courses.

PUBLICATIONS AND VISIBILITY

I am involved in intensive publication, dissemination and research exploitation activities. I published more than 100 publications, including 11 in peer-reviewed international journals (TWEB, IEEE Internet Computing, Semantic Web Journal, VLDB Journal), and 51 conferences papers (WWW, UMAP, CSCW, HyperText, ICWE, ISWC, SIGIR). According to Google Scholar, I currently feature more than 900 citations, an *H-index* of 13, and an *i10-index* of 22. Most of my publications have been produced in the last 6 years. I have co-authored papers with around 120 different co-authors. My research makes me a recognised contributor to the Web, Web engineering, and User modelling communities. This is partially demonstrated by my publication record, which includes papers in high-impact venues like: conceptual modelling of rich internet applications (TWEB 2013, 50 citations; ICWE 2006, 140 citations); multi-domain exploratory search on the Web (WWW 2010, 78 citations); crowdsourcing and human computation (WWW 2012 and WWW 2013, 127 citations); expert finding in social networks (EDBT 2013, 50 citations; UMAP 2014, 15 citations); efficient execution of SPARQL top-k queries (ISWC 2012, 19 citations). I am co-author of the book "Web Information Retrieval" (Springer, 2013).

I have given more than 15 invited talks at universities, research institutions, and international events all over the world (e.g. University of Oxford, Dagstuhl, University of Fribourg, Universite Paris Dauphine, University of Trento, L3S Research Centre, Politecnico di Milano, Delft Data Science, Amsterdam Data Science, Fraunhofer Heinrich-Hertz-Institut, IBM Benelux, etc.). I lectured in 3 summer schools, and provided 2 tutorials in international conferences.

My work finds natural applications and valorisation in a variety of contexts. I am co-inventor of the US patent "Method and system of management of queries for crowd searching" (US 8825701 B2, 2015), stemmed from the research line "Human-Enhanced Data Management". There I was also designer, architect, and coordinator of the research activities of the Crowdsearcher system. I am currently active in three investigation lines related to Social Data Science: Intelligent Cities (SocialGlass, AMS Amsterdam Institute for Advanced Metropolitan Solutions); Knowledge Creation in Online Social Communities (SEALINCMedia COMMIT/, StackOverflow); and the Inclusive Enterprise (with IBM Benelux CAS).

FUNDING AND PROJECT MANAGEMENT

I have worked within several **national** (Italian and Dutch), and **European research projects**, as well as with several companies for research exploitation and technology transfer (including IBM, Telecom Italia, UniCredit, and several SMEs). I have secured 250K Euro in fundings from European, national, and industrial project, plus 300K in in-kind contribution (computational resources, developers time) from IBM Benelux.

RESEARCH COMMUNITY SERVICE

I am Program Chair of ICWE 2016, organised in Lugano, Switzerland. I have been Program Chair of AWC 2015 (Australasian Web Conference) in Sydney; chair of the Social Web Applications Track at ICWE 2015 (International Conference on Web Engineering); I am currently co-editor of a special issue of the Semantic Web Journal on Human Computation and Crowdsourcing. I have been program chair of 5 workshops, and PC member of several conferences and workshops in the fields of: databases, Web, semantic Web, modeling, and software engineering. I am reviewer of several top journals.

TEACHING AND ACADEMIC SUPERVISION

I am lecturer of *Information Retrieval* (master level) and co-lecturer of *Web & Database Technology* (bachelor level). I am co-advisor of four PhD students at TU Delft, and have been co-advisor of one PhD student at Politecnico di Milano. I have been co-advisor of more than 40 B.Sc. and M.Sc. thesis.

Research Activities

My research focuses on the design, implementation and evaluation of novel methods and tools for Web information systems engineering and Web data management. In my research approach the theoretical work is always supported by substantial implementation and demonstration efforts. I strive to valorise the output of my research, and to create concrete industrial and societal impact.

The current focus is on themes related to Social Media and Data and Information management. In this respect, I am currently active in three investigation lines, described next: "Human-Enhanced Data Management", "Social Data Science for Intelligent Cities", and "Inclusive Enterprise Systems". My previous work at Politecnico di Milano addressed related themes, with specific focus on "Web Data Management" and "Model Driven Methods for Engineering Web-based Information Systems".

HUMAN-ENHANCED DATA MANAGEMENT

The amount of data that is collected and published by all kinds of applications is massive, and by far exceeds our current methods and infrastructure for processing and analysing it. Users' information needs are also getting more and more challenging and complex, as people and organisations want to exploit the available data to take conscious decisions about their problems. Responding to these needs will require more and more to integrate data and processing capabilities coming from a variety of sources, spanning from sensors on the field, expert opinions and insights, and available structured (e.g. knowledge repositories) and unstructured data, all showing different degrees of quality and trust.

In this scenario, it is paramount to leverage on the combined contribution of several kinds of sources, which may include: **humans** that behave as information provider nodes within crowdsourcing platforms, **social networks**, or special interest groups; wrappers to traditional data sources; **electronic sensors** for physical data. Altogether, these sources can be seen as pieces of a broad paradigm of smart and ubiquitous information collecting sensors.

The long-term objective of "Human-Enhanced Data Management" is to define the foundational theory for hybrid human and automatic data management. This line of research is characterised by a number of aspects and challenges, related to the study of the theoretical models and the technical means to achieve this integration. The research falls into the broader field of **"Crowdsourcing"**, a topic that received substantial attention from different perspectives and within various communities, including information retrieval, databases, artificial intelligence, social sciences, and others.

The research line is organised in two work-packages: "Open architectures and systems for distributed human computations", devoted to the architectural and methodological implications of crowdsourcing; and "Knowledge-Intensive Crowdsourcing", which focuses on the application of crowdsourcing techniques for knowledge generation.

Open architectures and systems for distributed human computations

In a seminal work [IC.25] published at the WWW 2012 conference I proposed *CrowdSearcher*, a novel multi-domain search paradigm. It embodies crowds as first-class sources for the information seeking process by filling the gap between generalised search systems, which operate upon world-wide information – including facts and recommendations as crawled and indexed by computerised systems – with social systems, capable of interacting with real people, in real time, to capture their opinions, suggestions, and emotions. The approach has been later extended in several directions. [IC.18] (WWW 2013) introduces a reactive framework for the dynamic specification of task allocation and quality control rules. [IC.11] (ICWE 2014 **Best Paper Award**) and [JR.2] (Journal of Web Engineering) introduces support for crowdsourcing workflows, and distills a set of typical crowdsourcing patterns. [WS.1] addressed the problem of task recommendation in human computation platforms, and describes an experiment to test two classes of recommendation techniques, namely Task-oriented and Performer-oriented.

The research activity resulted in a prototypal system [url: http://crowdsearcher.search-computing. org], and it involved the work of several students (master thesis) and cooperations with international research groups. The effectiveness of the paradigm has been tested in several scenario, including multimedia search [IB.11] within the CuBRIK project [IC.26], where the socially-enacted search interaction is adopted for the indexing and the querying processes [WS.8].

Knowledge-Intensive Crowdsourcing

Crowdsourcing has been usually studied as a computation tool, where tasks are assumed to be of low cognitive complexity, and workers are assumed to be endless, anonymous and disposable. Such crowdsourcing only takes little advantage of human capabilities, mostly only relying on the availability of workers. However, the rich, knowledge-related features of humans (i.e. expertise and skills), and their subjective perceptions are less considered. By fully unlocking the value of such inherent human abilities, crowdsourcing can reach its full potential, and enable the solution of more complex, cognitive intensive tasks.

This research activity focuses on knowledge crowdsourcing, i.e. the process of designing, executing and coordinating crowdsourcing tasks that are knowledge intensive. Based on this definition, the goal is to develop the methods and tools required to control and accelerate the process of crowdsourced knowledge creation, by taking into account the rich set of knowledge-related features of humans, like experience, expertise, or opinion. The problem of Knowledge-Intensive Crowdsourcing is currently studied in two scenario, next described.

Online Knowledge Creation: This scenario considers knowledge crowdsourcing in the open Web environment. Typical applications include community-based question answering systems such as Stack Overflow and Yahoo! Answers, content curation systems like Reddit, and diverse on-line forums [IC.8]. Despite the high activeness of such systems, requests are not always satisfied due to the wide range of request difficulty and user expertise levels. In this scenario, the research questions are: 1) how to model users with different levels of expertise?; 2) how to model tasks of different levels of difficulty?; and 3) how to reduce time needed for obtaining good solutions/content?. The research is pursued by the PhD student Jie Yang, and resulted in three publications in international conferences [IC.10] (Hypertext 2014), [IC.13] (UMAP 2014), and [IC.3] (UMAP 2015). A journal publication is currently in writing, and planned for submission in Fall 2015.

Annotation of Cultural Heritage Collections with Crowd Generated Knowledge: Cultural heritage institutions more and more provide online access to their collections. To make such collections suitable for access and retrieval, (visual) artworks need detailed and thorough annotations. Crowdsourcing has proven a viable tool to cater for the pitfalls of automatic annotation techniques. However, differently from traditional photographic image annotation, the artwork annotation task requires workers to possess the knowledge and skills needed to identify and recognise the occurrences of high-level concepts. The extent by which crowdsourcing can be effectively applied for artwork annotation is still an open research question.

This research task develops in the context of the SEALINCMedia project. The research is pursued by the PhD student Jasper Oosterman, and resulted in four publications in international conferences [IC.4] (SAC 2015), [IC.15] (WWW 2014), [IC.16] (Web Science 2015), [IC.16] (Web Science 2015). A journal publication is accepted for publication [IC.1] (Computer Networks), and another journal publication under submission. The research activity includes the participation to the development of the Accurator, a crowdsourcing platform that addresses several research challenges, including: to identify the niche of relevant experts; and to motivate them to contribute to the annotation of artworks; evaluating the quality of the annotations and annotators using trust algorithms; and to present all these aspects in an appropriate interface.

SOCIAL DATA SCIENCE FOR INTELLIGENT CITIES

Understanding the complexity of city dynamics requires the combination of information from multiple urban data sources. Besides traditional urban data, geo-localized social media provide human-generated content, which may reflect in (near) real time the activities people undertake in cities. The challenge is to devise

methods and tools that enable the integration and analysis of such heterogeneous sources of information.

This motivation drove the development of *SocialGlass*, a Web-based application framework aimed at exploring, monitoring, and visualising urban dynamics [IC.2] (WWW 2015), [IC.5] (CUPUM 2015), [IC.6] (CAAD-FUTURES 2015), [JR.6] (ERCIM News). The development of *SocialGlass* started in 2013, in the context of the EIT City Data Fusion projects. Since then, *SocialGlass* has been used as a tool for research and valorisation. For instance, it has been used to study the problem of venue recommendation in city scale events [JR.3] (Internet Computing); and to support event organisers like in the "Amsterdam Light Festival 2014" use case. *SocialGlass* is now a featured project of the AMS Amsterdam Institute for Advanced Metropolitan Solutions, and it will be used in the near future in further experiments during the SAIL 2015 event.

(Social) Urban data bring a new class of challenges related to the volume, variety, and veracity of data. In particular, in an urban environment, users (citizens, tourists, etc.) play a key role for understanding the dynamics of a city. In this respect, *social sensing* can be a fundamental tool to: 1) unlock data that is not readily available from more traditional sensors such as weather stations; and 2) involve citizens and thereby increase citizen awareness of challenges that cities face. The research activity is currently focusing on novel methods and tools to efficiently and effectively engaging people in collecting, sharing and processing data to measure and map phenomena of common interest. This requires addressing questions such as: How can data collection and processing be customised to specific user requests? How to involve people in refining and verifying data? How to find and derive relevant information from social media? How to enable users to set conditions on the use of their resources, and how to monitor compliance?

INCLUSIVE ENTERPRISE

For companies across the globe, building and sustaining a talent pipeline has become top priority. Job satisfaction is a core reason for employee retention and has shown to be more dependent on the organisational climate (e.g. working conditions, leadership and inclusion), than on variables such as structure, size, and pay. The vision of an "Inclusive Enterprise", advocates well-being and inclusion as core properties of next generation enterprises. To achieve this vision, I take a computer science angle, by asking the question: how can computer systems help to foster inclusion and well-being in the enterprise?. Variables such as organisation structure and size, and salary can be easily quantified and controlled; on the other hand, well- being and inclusion are difficult to capture and influence. The scientific challenge lies in the creation of methods and tools able to sense and affect the the organisational climate, to benefit its employees.

This research line is developed in collaboration with IBM Benelux, and is described in a vision paper [IC.9] published in the ICWE 2015 conference. In a recent work [IC.14] (WWW 2014), currently under submission as an extended version to the *Journal of Web Science*, we took a first step in this direction by showing how online social media could be used to better understand the internal and external corporate dynamics.

The research has just begun, and it is currently supported by in-kind contributions of IBM Benelux (computational resources, and developers time). We are conducting several exploratory studies aiming at understanding to which extent existing enterprise data sources can help framing the status of an employee. To this end, we are investigating how social media can be used to elicit expertise profiles, or characterising personality traits of employees. The next step is to investigate how environmental and working conditions aspects can be inferred from data produced by employees. Whenever existing data are not sufficient, we will develop methods for (enterprise) social sensing aimed at data collection and enrichment. Finally, we plan to experiment with ways to influence engagement and satis- faction. We are undergoing experiments aimed at providing better understanding of the fundamental principles of computer-mediated engagement mechanics in the enterprise.

WEB DATA MANAGEMENT

An increasing number of data sets is becoming available on the Web as (semi) structured data instead of user-consumable pages. Initiatives such as the W3C Linked Open Data (LOD) are fostering Web-scale structured

data publishing, and open or proprietary data are made available through Web APIs (e.g., Google Places API) and/or search-specific languages (e.g., the Yahoo Query Language framework). The availability of new, specialised data sources – the so-called "long tail" of the hidden Web of data – naturally calls for efficient and scalable method for data integration, search, interaction, and efficient processing.

My interest in Web data management developed within the Search Computing project [url: `http://www.search-computing.org`], and focused on multi-domain Web data management, i.e. data- and information-retrieval that spans over multiple semantic fields of interest. The research addressed several topics, including *architectural and methodological* aspects of multi-domain data management [JR.11] [IC.30]; *result diversification* for multi-domain search [IC.29] [IC.24], and *Human-Computer interaction for Multi-domain information seeking*.

Within the latter topic, I proposed the "Liquid Query" paradigm [IC.37] (WWW 2010), an original interaction paradigm focused on distinctive multi-domain data management characteristics, such as exploratory retrieval, ranking, data visualization, and result layout presentation. The research activity produced several publications in national and international books, conferences and journals [JR.9] (Internet Computing) [IB.5] [WS.16], and it also addressed problems of data visualization, and result layout presentation [IC.35][IB.8][WS.15][WS.13]. The project comprised relevant implementation and demonstration efforts, where I have been responsible for the coordination of the activities of several research assistants, PhD students, and master thesis students. The implemented systems have been widely demonstrated in the main Web and data management conferences, including SIGMOD [IC.27], WWW [IC.28], ICWE [IC.32], and ICSOC [IC.36].

This research ended when I left Politecnico di Milano, and concluded with a publication in the **VLDB Journal** [JR.7]. The knowledge and experience gained during the project lead to an authored book on "Web information retrieval" [BK.1] (Springer, 2013).

Within the *Web Data Management* research line I also addressed the problem of efficient evaluation of SPARQL Top-k queries, i.e. queries returning the top k results ordered by a user-defined scoring function, are an important category of queries. Order is an important property of data that can be exploited to speed up query processing. As original contribution, we defined 1) a SPARQL-RANK algebra, i.e. an extended SPARQL algebra that treats order as a first class citizen; 2) an incremental execution model for top-k queries based on the SPARQL-RANK algebra; and 3) ARQ-RANK [url: `http://sparqlrank.search-computing.org/`], and implementation of the SPARQL algebra and execution model.

The main results of this research line have been published in several international conferences and books [JR.8] (Semantic Web Journal), [IC.22] (ISWC 2012), [IC.17] (ISWC 2014), [IB.6] [IB.2] [WS.11], where we provided experimental evidence that the SPARQL-RANK incremental execution model can speed up the execution of top-k queries in ARQ-RANK by orders of magnitude w.r.t. the original ARQ implementation.

Model Driven Methods for Engineering Web-based Information Systems

Model Driven Engineering (MDE) is a software engineering paradigm that elects models as the primary artefacts of all software engineering activities, from the analysis to the design to the implementation phases and including also evolution, maintenance, reengineering, etc. The underlying idea is that models provide the right abstraction level to perform all these tasks with increased quality and productivity.

My interest for this research area started during my master thesis, where I focused on the extension of Web applications modelling languages to allow the design, specification and automatic code generation of Rich Internet Application (RIA), i.e. Web based applications featuring client-side data and computation, bidirectional client-server communication, synchronous and asynchronous events, and rich interface widgets. The work proposed an approach based on the WebML modelling language, and it has been widely recognised in the Web engineering community: it produced a transaction [JR.10] (TWEB 2010) and several publications on international conferences (e.g. [IC.47] [IC.51] [IC.52] [IC.44]) that collected more than 150 citations.

My interest in the topic continued during my doctoral studies, where I defined a formal model and a

methodology for the specification of "Search-based" Web applications (SBA), i.e., data-centric applications that integrates data- and information-retrieval systems by means of complex back-end (specialized in content provisioning, annotation, indexing, and distributed query execution) and front-end (dedicated to query expression and result presentation) processes. This work explored the usage of MDE and model transformations to structure the life-cycle of search-based applications, considered as process- and data-intensive applications.

The main results have been published in several international conference publications (e.g. [IC.46] [IC.41] [WS.8]). The research began in the context of the European project PHAROS [IC.40], and sparkled the idea behind the CuBRIK EU project [IC.26] proposal,

This research line has expanded to include issues related to the application of information retrieval techniques to model repositories management [IC.31] (ICWE 2011) [WS.17] [WS.9]. The work has been the PhD topic of Bojana Bislimovska, and resulted in an ACM Transaction on the Web [JR.4] (**TWEB**).

Teaching Statement

As shown by my teaching track record, the same commitment to topics related to Human-Enhanced Data Management, Social Data Science, Web Technologies, and Web Engineering that propels my research also inspire my work in the classroom, and my commitment to innovation in education.

I strive to educate the next generation of professionals in computer science and engineering, to whom I demand subject-matter excellence and social responsibility.

My teaching is driven by the belief (and empirical observation) that modern computer science education requires four main ingredients:

- solid theoretical background

- practical, hands-on experience and experimentation on real or realistic implementations

- clear methodological guidelines

- strong attitude toward critical thinking and team working

To become independent learners, students should be provided with opportunities to creatively build from the theory. Students must be offered with hands-on experience on real-world research and industrial problems, possibly involving multiple disciplines and areas of knowledge. This is of prime importance in master-level classes, where students should be learning to be independent as scholars and as engineers.

That is why my teaching philosophy gives value to all the following tools:

- *traditional lecturing*, which is essential to guide and motivate students in understanding the fundamental concepts in computer science

- *practical assignments*, often performed on groups, which foster their problem-solving skills while stimulating creativity and communication skills

- *autonomous learning* trough reading assignments and additional on-line material, followed by in-class discussion lead by the assignee, which encourage critical thinking.

In my courses I always commit a lot of resources to personal interaction with students, and interactive validation of examinations and project works. I believe this to be one of the most effective ways of transferring knowledge. I encourage students to engage in open and critical discussions about the design and the implementation of their practical assignments, with the goal of developing "soft skills" such as conceptual modelling, communication, and leadership.

These active learning methods can take additional time, but they proved to be better suited to cater for the different theoretical, technical, and cultural background of a multi-cultural class, allowing students to feel more motivated and confident with their abilities, while encouraging them to expand their body of knowledge to complete the assigned task. In addition, creative and collaborative learning methods prepare students for working in quickly evolving ICT landscapes, helping them forming the T-shaped set of skills which is mandatory in modern enterprises.

The offer of concrete research problems can arouse students curiosity into scientific careers, motivating them to pursue thesis within the research group, and, sometimes, to join a PhD program. In several occasions I worked one-on-one with students on individual research projects that later contributed to published articles; in other cases the involvement of students included the co-authorship of papers and, in the long run, caused their recruiting as master thesis or PhD students.

Having observed the benefits of this teaching model, I intend to include such methods in my classes whenever possible: the enthusiasm that I put in trying to successfully support students during their education process reflects the passion for my field, and I take a very personal stake in providing them with an inspiring and productive learning environment.

A Reflection on the UTQ Trajectory

Before joining TU Delft I acquired teaching experience by serving as main lecturer, teaching assistant, and lab responsible for several university courses at Politecnico di Milano (Italy), other European universities, and several industrial courses. Overall, my previous teaching experience summed up to 7 years. In the context of my teaching responsibilities at TU Delft, my previous experience provided both a foundation and a baggage, as the adaptation to a new environment brought some integration penalties.

The UTQ trajectory showed me an alternative perspective on the art and practice of education, which greatly added on my previous, more empirical experiences. Looking in perspective, the UTQ trajectory provided me with a great amount of valuable insights and tools to improve the quality of my courses, and my abilities as a lecturer. In hindsight, I now recognise several shortfalls in my teaching performance, that I addressed, and I am currently addressing. The exercise of re-designing several aspects of my course (in terms of constructive alignment, teaching delivery, assessment plan, and project work) stimulated a very profound self-reflection. The concepts and tools described in the UTQ module gave me a "blueprint for excellence" that I now commit to apply in every course that I will manage. The very positive feedbacks received from all the instructors of the UTQ courses give me great confidence about my ability to bring my teaching performance to the next level.

A Reflection on Innovation in Education

TI1506 Web&Database course is a first year Bachelor course, offered to Computer Science students (as a mandatory course), but also to minor SOT ("Software Ontwerpen en Toepassen") students. TI1506 proved to be an interesting milestone in my development path as a teacher.

The course is characterised by 3 important properties: 1) The student body is highly diverse with respect to prior knowledge, especially related to programming, mathematical and logic. 2) The target population is mainly composed by first year students: being new to an advanced education environment, they require constant supervision (which is difficult to provide given the number of students) in order to guarantee an effective learning experience. Finally, 3) the high number of students (around 300 during the last academic year) calls for correct yet effective assessment methods, to guarantee exhaustive and responsive feedbacks.

The first edition of the course highlighted how these three properties could put a strain on my ability to deliver an effective (and efficient) course. Together with Dr. Claudia Hauff, co-responsible for the TI1506 course, we decided to look for support inside an outside the faculty.

To cope with the above mentioned requirements, we decided to turn to *blended learning* tools and techniques. We applied and obtained several grants from the university (*Tender Studiesucces*, *Blended Education Tender*), and devised a 2 years plan to improve the TI1506 course material, organisation, and assessment methods. Our goal is to: 1) increase the overall learning experience of students by providing learning paths targeted to the diverse knowledge backgrounds; 2) engage students by means of up-to-date and challenging contents; 3) continuously monitor the progress of students, providing them and the course instructors with feedbacks about the current status of learning.

The plan is still in progress, but we observed significant improvements in terms of both students' learning and satisfaction.

Detailed Curriculum Vitae

Position and Education

January 2014 – now

>Faculty Fellow at the IBM Benelux, Centre of Advanced Studies.

February 2013 – now

>Assistant Professor at the Delft University of Technology, with the Web Information Systems group.

April 2010 – January 2013

>Post-doc at the Department of Electronics and Computer Science of the Politecnico di Milano working on "Visual Interfaces and Tools for Multi-Domain Data Management Applications", and "Human- and Social- enhanced Multi-media and Multi-Domain Data Management".

2012

>IT Consultant for Business Process Modeling and Service Oriented Architecture in Locat s.r.l. (UniCredit Group).

January 2009 – March 2010

>Temporary research assistant at the Department of Electronics and Computer Science of the Politecnico di Milano working on "Extending WebML and WebRatio to support business process models".

2008

>IT Consultant for Model Driven system and process re-engineering in Locat s.r.l. (UniCredit Group).

2007 - 2010

>Analyst and lecturer in industrial courses for Web Models S.R.L. (Piazza Cadorna, 10. Milano - Italy), working on social- and search-based Web applications design and development.

July 2000 - August 2004

>Chief technician and coordinator of the high-automation robot system services offered to the A.Manzoni hospital - Lecco.

EDUCATION

- Ph.D. in Information Technology at Politecnico di Milano. 2009. Mark: A
  Title: *Model Driven Development of Search-based Web Applications*
  Advisor: *Prof. Piero Fraternali*
  External Examiner: *Prof. Wolfgang Nejdl*

- M.Sc. in Computer Science Engineering. October 2005. Grade: 110/110 cum laude.
  Thesis title: *Towards an unified model for the specification of server-side and client-side applications: an approach oriented to Rich Internet Applications.*
  Advisor *Prof. Piero Fraternali*

- B.Sc. in Computer Science Engineering. October 2003.
  Thesis title: *Analysis and development of a web based application for the management of the cardiology ward.*
  Advisor *Prof. Piero Fraternali*

VISITING EXPERIENCES

- Visiting researcher at L3S Research Center, Hannover, Germany (October 2007 - February 2008).

- Visiting researcher at FAST Search & Transfer (Microsoft Subsidiary), Oslo, Norway (August 2008).

- Visiting student at Universidad Politecnica de Valencia, Spain (September 2004 - February 2005).

SCHOLARSHIPS

- Post-doc from Dipartimento di Elettronica e Informazione, working on "Visual Interfaces and Tools for Multi-Domain Dats Management Applications" (April 2010 - March 2012).

- Three-year scholarship for Ph.D. studies of the Italian Ministry of Education, University and Research.

- 6-months scholarship from the European ERASMUS program.

Teaching activities

2015-2016

TU Delft *IN4325* Information Retrieval (*Lecturer*) - Graduate level - Course taught in English.

TU Delft *TI1505* Web and Database Technology (*co-Lecturer*) - Undergraduate level - Course taught in English.

TU Delft *IN4252* Web Science & Engineering (*Invited Lecturer*) - Graduate level - Course taught in English.

Politecnico di Milano Tecnologie Informatiche per il Web - Web Technologies (*Teaching assistant*) - On-Line Computer Engineering - Undergraduate level. [url: http://www.laureaonline.polimi.it/corsi/corso_3e_tecweb.html]

2014-2015

TU Delft *IN4325* Information Retrieval (*Lecturer*) - Graduate level - Course taught in English.

TU Delft *TI1505* Web and Database Technology (*co-Lecturer*) - Undergraduate level - Course taught in English.

TU Delft *IN4252* Web Science & Engineering (*Invited Lecturer*) - Graduate level - Course taught in English.

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2013-2014

TU Delft *IN4325* Information Retrieval (*Lecturer*) - Graduate level - Course taught in English.

TU Delft *TI1505* Web and Database Technology (*co-Lecturer*) - Undergraduate level - Course taught in English.

TU Delft *IN4252* Web Science & Engineering (*Invited Lecturer*) - Graduate level - Course taught in English.

Politecnico di Milano Tecnologie Informatiche per il Web - Web Technologies (*Teaching assistant*) - On-Line Computer Engineering - Undergraduate level. [url: http://www.laureaonline.polimi.it/corsi/corso_3e_tecweb.html]

2012-2013

TU Delft *IN4325* Information Retrieval (*Lecturer*) - Graduate level - Course taught in English.

Politecnico di Milano Search Computing - (*Teaching assistant*) - Computer Engineering - Graduate level - Course taught in English [url: http://bit.ly/SearchComputingPolimi2013].

Politecnico di Milano Fondamenti di Informatica A - (*Teaching assistant*) - Computer Engineering - Undergraduate level [url: http://bit.ly/FondamentiInfoPolimi2013].

Politecnico di Milano Tecnologie Informatiche per il Web - Web Technologies (*Teaching assistant*) - On-Line Computer Engineering - Undergraduate level. [url: http://www.laureaonline.polimi.it/corsi/corso_3e_tecweb.html]

2011-2012

Lublin Technical University Foundations of Software Engineering (*Lecturer*) - Computer Engineering - Undergraduate level - Course taught in English.

Politecnico di Milano Advanced Database and Web Technologies (*Teaching assistant, Lab. supervisor*) - Computer Engineering - Graduate level - Course taught in English [url: http://bit.ly/awtPolimi2012].

Politecnico di Milano Tecnologie Informatiche per il Web - Web Technologies (*Teaching assistant*) - On-Line Computer Engineering - Undergraduate level. [url: http://www.laureaonline.polimi.it/corsi/corso_3e_tecweb.html]

Politecnico di Milano Basi Di Dati e Web - Web Technologies (*Teaching assistant, Lab. supervisor*) - Computer Engineering - Undergraduate level [url: http://bit.ly/dbWebPolimi2012].

Politecnico di Milano Search Computing - (*Teaching assistant*) - Computer Engineering - Graduate level - Course taught in English [url: http://bit.ly/SearchComputingPolimi2012].

Politecnico di Milano Fondamenti di Informatica A - (*Teaching assistant*) - Computer Engineering - Undergraduate level [url: http://bit.ly/FondamentiInfoPolimi2012].

Politecnico di Milano Search Computing - (*Teaching assistant*) - CEFRIEL Master on Centralized Systems - Graduate (Master) level [url: http://bit.ly/MasterCloudCEFRIEL2012]

2010-2011

Lublin Technical University Model Driven Engineering (*Lecturer*) - Computer Engineering - Undergraduate level - Course taught in English.

Politecnico di Milano Advanced Database and Web Technologies (*Teaching assistant, Lab. supervisor*) - Computer Engineering - Graduate level - Course taught in English.

Politecnico di Milano Tecnologie Informatiche per il Web - Web Technologies (*Teaching assistant*) - On-Line Computer Engineering - Undergraduate level.

Politecnico di Milano Basi Di Dati e Web - Web Technologies (*Teaching assistant, Lab. supervisor*) - Computer Engineering - Undergraduate level.

Politecnico di Milano Search Computing – Computer Engineering - Graduate level - Course taught in English.

Politecnico di Milano Fondamenti di Informatica A - (*Teaching assistant*) - Computer Engineering - Undergraduate level.

Politecnico di Milano Applicazioni di Informatica - Informatics Applications (*Lab. supervisor*) - Industrial Design, Art, Communication and Fashion - Undergraduate level.

2009-2010

Politecnico di Milano Advanced Web Technologies (*Teaching assistant, Lab. supervisor*) - Computer Engineering - Graduate level - Course taught in English.

Politecnico di Milano Tecnologie Informatiche per il Web - Web Technologies (*Teaching assistant*) - On-Line Computer Engineering - Undergraduate level.

Politecnico di Milano Tecnologie Informatiche per il Web - Web Technologies (*Teaching assistant, Lab. supervisor*) - Computer Engineering - Undergraduate level.

Politecnico di Milano Argomenti Avanzati di Sistemi Informativi B - Advanced Topics in Informative Systems (*Teaching assistant*) - Computer Engineering - Graduate level - Course taught in English.

Politecnico di Milano Applicazioni di Informatica - Informatics Applications (*Lab. supervisor*) - Industrial Design, Art, Communication and Fashion - Undergraduate level.

Politecnico di Milano Digital Content and Interaction - (*Teaching assistant*) - MIP ACER Academy - Graduate (Master) level

2008-2009

Politecnico di Milano Advanced Web Technologies (*Teaching assistant, Lab. supervisor*) - Computer Engineering - Graduate level - Course taught in English.

Politecnico di Milano Workgroup and Workflow Systems (*Teaching assistant, Lab. supervisor*) - Computer Engineering - Graduate level - Course taught in English.

Politecnico di Milano Tecnologie Informatiche per il Web - Web Technologies (*Teaching assistant, Lab. supervisor*) - Computer Engineering - Undergraduate level.

Politecnico di Milano Argomenti Avanzati di Sistemi Informativi B - Advanced Topics in Informative Systems (*Teaching assistant*) - Computer Engineering - Graduate level - Course taught in English.

Politecnico di Milano Applicazioni di Informatica - Informatics Applications (*Lab. supervisor*) - Industrial Design, Art, Communication and Fashion - Undergraduate level.

2007-2008

Politecnico di Milano Advanced Web Technologies (*Teaching assistant, Lab. supervisor*) - Computer Engineering - Graduate level - Course taught in English.

Politecnico di Milano Tecnologie Informatiche per il Web - Web Technologies (*Teaching assistant, Lab. supervisor*) - Computer Engineering - Undergraduate level.

Politecnico di Milano Interior Domotics Design - (*Teaching assistant*) - Industrial Design, Art, Communication and Fashion - Graduate (Master) level

2006-2007

Politecnico di Milano Tecnologie Informatiche per il Web - Web Technologies (*Teaching assistant, Lab. supervisor*) - Computer Engineering - Undergraduate level.

Politecnico di Milano Tecnologie Informatiche per il Web - Web Technologies (*Tutor*) - On-Line Computer Engineering - Undergraduate level.

Politecnico di Milano Cultura Tecnologica di Progetto (*Tutor*) - Industrial Design, Art, Communication and Fashion - Undergraduate level.

2005-2006

Politecnico di Milano Informatica 1 (*Tutor*) - Computer Engineering - Undergraduate level.

STUDENTS SUPERVISION

PhD Students - Daily Supervisor

PHD.1. *Achilleas Psyllidis* (external advisor. PhD Candidate in Urban Informatics, Faculty of Architecture). Sep. 2014 - *now*, "Computational Urban Science"

PHD.2. *Sepideh Mesbah* March. 2016 - *now*, "Big Data Injection"

PHD.3. *Jie Yang* Nov. 2013 - *now*, "Crowd Knowledge Acceleration"

PHD.4. *Jasper Oosterman* Feb. 2013 - *now*, "Crowd Generated Knowledge"

PHD.5. *Bojana Bislimovska* 2011 - Feb. 2013, "Content-Based Information Retrieval for Model Repositories"

Master Thesis - Supervisor and Daily Supervisor

Ms.1. *Carlo van der Valk* 2016-, "Perception of task complexity in crowdsourcing communities"

Ms.2. *Sarah Bashirieh* (in collaboration with IBM Netherlands) 2015-, "Enterprise Mobile Crowdsourcing"

Ms.3. *Giuseppe Silvestri* (visiting student from University of Calabria) 2015-, "Cross-Platform Expertise Characterisation"

Ms.4. *Camiel Steenstra* (in collaboration with IBM Netherlands) 2015-2016, "A privacy aware infrastructure for an Inclusive Enterprise at IBM"

Ms.5. *Vincent Gong* 2015-2016, "Urban Analytics with Multi-Cultural Social Media Sources "

Ms.6. *Lie Yen Chun* (in collaboration with IBM Netherlands) 2014-2016, "Influence Of Personality Traits on Enterprise Gamification Strategies"

Ms.7. *Friso Abcouwer* 2015, "Complexity of Human Computation Tasks"

Ms.8. *Uditha Ravindra* (in collaboration with IBM Netherlands) 2015, "Perception of Work Environment Towards Employee Well-being"

Ms.9. *Catalin Stanculescu* (in collaboration with IBM Netherlands) 2013-2014, "Driving engagement and online social behaviour of employees in an enterprise environment"

Ms.10. *Nidhi Singh* (in collaboration with IBM Netherlands) 2013-, "Socially-Enhanced Enterprise Expert Finding"

Ms.11. *Christiaan Tito Bolivar* 2013-2014, "City Usage Analysis Using Social Media"

Ms.12. *Elwin Doketer* 2013-2015, "Characterisation of Traffic Events using Social Media "

Ms.13. *Sijmen Hoogendijk* 2013-2014, "Ask the Right Expert – Question Routing Based On User Expertise in Web Questions Answering Systems"

Ms.14. *Debarshi Basak* 2013-2014, "Task Recommendation for Human Computation"

Ms.15. *Martijn Rentmeester* 2012-2014, "Towards a Social Web based solution to bootstrap new domains in cross-domain recommendations"

Ms.16. *Hariton A. Efstathiades* (in collaboration with IBM Netherlands) 2012-2013, "Extract Knowledge from Social Networks"

Ms.17. *Nicolo Aquilini* 2011-2012, "Human-Enhanced Multimedia Analysis and Search"

Ms.18. *Giorgio Sironi* 2011- 2012, "Automatic alignment of user identities in heterogeneous social networks"

Ms.19. *Riccardo Volonterio* 2011- 2012, "Parasitic Computing for Multimedia Content Analysis"

Ms.20. *Matteo Silvestri, Giuliano Vesci* 2011- 2012, "Social-enriched Expert Finding"

Ms.21. *Sara Magliacane* 2010-2011, "Towards a Rank-Aware Execution of Top-K SPARQL Queries"

Ms.22. *Muhammad Shoaib Iqbal* 2010-2011, "Diversification for Multi-Domain Result Sets"

Ms.23. *Stefano Celentano, Lorenzo Furrer* 2010-2011, "Model-Driven Retrieval of Model Repositories"

Ms.24. *Marco Rivera* 2010-2011, "Editor WYSIWYG as a support for Model Driven Development of Web Applications"

Ms.25. *Michele Follo, Andrea Vaccarella* 2010-2011, "Diversification for multi-domain result sets"

Ms.26. *Bojana Bislimovska* 2010-2011, "Content-Based Information Retrieval for Model Repositories"

Ms.27. *Laura Cigardi* 2010-2011, "Automatic Layout Composition of Multi-Domain Search Result Interfaces"

Ms.28. *Chiara Pasini* 2009-2010, "Integration and Exploration of Linked Data and Unstructured Information over the Web"

Ms.29. *Jean-Philippe Bougie* 2008-2009, "A Natural Language Analysis Framework for Multi-Domain Queries"

Ms.30. *Nicola Olivadoti* 2008-2009, "Component-based Design of Multimedia Indexing Processes"

Ms.31. *Zhou Zhonghai* 2008-2009, "Rich Web Interfaces for Multimedia Search Applications"

Undergraduate Students Advisor

Bs.1. *Bojana Dumeljic* 2014, "Moody Closet: Exploring Intriguing New Views on Wardrobe Recommendation"

Bs.2. *Pedram Ardeshirzadeh, Kevin Kessels, Ping Wan* 2014 "CHAINels Automatic Web Data Extraction"

Bs.3. *T. Langerak, A. Walterbos* 2013 "Magnet.me IT Infrastructure Re-organization"

Bs.4. *Henk Kant, Daniel Mast* 2013, "Project COAT: CHAINels Online Administration Tool"

Bs.5. *Alessandro Fantin* 2010- 2011, "Un Editor Web per la Gestione di Progetti WebML"

Bs.6. *Giorgio Sironi* 2009- 2010, "Chansonnier: Applicazione Web di Ricerca Multimediale su Video Musicali"

Bs.7. *Mattia Berlusconi* 2009- 2010, "iPark: Una Applicazione Web 2.0 Per la Localizzazione dei Parcheggi Italiani"

Bs.8. *Nicolo Aquilini* 2008- 2009, "Identificazione del Dominio Semantico di una Form HTML attraverso tecniche di analisi del linguaggio naturale"

Bs.9. *AndreaGiovanni Reina* 2007- 2008, "La Riformulazione delle Interrogazioni nei Motori di Ricerca: Una Analisi Statistica"

Professional Activities

- *CodaLoop*, May. 2016 - *now*,
  Goals: Despite targeted policies and technological innovations, household energy consumption is still increasing in Europe. This project seeks to break this impasse by enabling behavioral change through the design, implementation and assessment of learning feedback loops supported by a web-based platform. It will enhance individual and community learning processes and inform policies for the smart use of big data. CODA Loop is transdisciplinary and experimental, aiming at: a) understanding data-driven learning feedback loops between individuals and communities to enable behavioral change in energy choices, b) generating ?Individual to Community? and ?Community to Policy? loops through designing and testing a learning support software for data-sharing, c) analyzing and assessing the interaction among individuals and groups within this platform to inform wider policies for energy transitions. The project delivers: a) a prototype learning platform for sharing data about individual and community energy consumption choices; b) a plan for the marketization and wider application of this platform: c) policy recommendations for enabling learning and behavioral change towards reduced energy use. CODALoop combines cutting edge cognitive modeling, data analysis and qualitative research methods.
  Role: leader of WP5 - Design of social data collection, integration, analysis and sense making (for data-driven learning and adaptation feedback loops). CODA Loop is an ERA-NET Cofund Smart Cities and Communities project. It includes 13 partners with diverse backgrounds and focuses on a set of selected urban areas through a living lab approach.

- *The Inclusive Enterprise*, Jan. 2015 - *now*,
  Goals: For companies across the globe, building and sustaining a talent pipeline has become top priority. Several studies show that extrinsic factors, such as salary and payment, are not the core reason for employee retention. On the other hand job satisfaction, the "degree to which individuals like their jobs", is key; it depends on variables such as structure, size, pay, working conditions and leadership, which represent the organisational climate. We believe that an happy employee is a productive employee and less likely to leave, and we advocate inclusion, "a sense of belonging: feeling respected, valued for who you are; feeling a level of supportive energy and commitment from others so than you can do your best work", as a core property of next generation enterprises. To achieve this vision, we take a computer science angle, by asking ourselves the question: how can computer systems help to foster inclusion and well-being in the enterprise?
  Role: principal investigator. This research line is conducted in collaboration with IBM Benelux, and its Center of Advanced Studies.

- *Social Glass*, Sept. 2014 - *now*,
  Goals: Social Glass is a novel web-based platform that supports the analysis, valorisation, integration, and visualisation of large-scale and heterogeneous urban data in the domains of city planning and decision-making. The platform systematically combines publicly available social datasets from municipalities together with social media streams (e.g. Twitter, Instagram and Foursquare) and resources from knowledge repositories. It further enables the mapping of demographic information, human movement pat- terns, place popularity, traffic conditions, as well as citizens' and visitors' opinions and preferences with regard to specific venues in the city. Social Glass has been applied in several real-world case studies, which demonstrated the framework's conceptual properties, and its potential value as a solution for urban analytics and city-scale event monitoring and assessment.
  Website: http://www.social-glass.org
  Role: principal investigator. Social Glass is a research partially funded by the EIT ICT Labs, and by the Amsterdam Institute for Advanced Metropolitan Solutions.

- *COMMIT - SEALINCMedia*, Feb. 2013 - *now*,
  Goals: SEALINCMedia has the objective to develop solutions to enrich cultural heritage collections using Internet-enabled reliable, scalable and cost effective collaborative content curation and to improve accessibility through advanced personalised content recommendation and search functionalities. In the context of SEALINCMedia, the WUDE (Web User Demand Elicitation) work-package aims at providing a framework for user modelling and demand elicitation with an application in crowdsourcing and niche-sourcing, tailored to the needs of cultural data management organisations. By capitalising on the experience of the Web Information System group in adaptive Web-based systems and social-computation, WUDE will tap the Social Web and human computation platforms to provide the knowledge required for the design and execution of efficient and effective crowdsourcing campaigns.
  Website: http://www.wis.ewi.tudelft.nl/research-lines/wude/
  Project leader: prof. Alan Hanjalic (Delft University of Technology)
  Role: Leader of the Worktable 2, addressing the Rijksmuseum Amsterdam Use Case. Responsible for the "Web user demand elicitation (WUDE)" work package. Coordinator of the demonstration and implementation activities.

- *City Data Fusion for Event Management*, Sept. 2013 - Dec 2014, , EIT ICT Labs, Urban Life and Mobility
  Goals: is a project, funded by the ICT Labs of the European Institute of Innovation and Technologies (EIT), which aims at enhancing the ability to feel the pulse of our cities to deliver innovative services. To this end, this research is collecting in real-time data streams of different types ranging from social networks (e.g., Twitter and Foursquare) to sensor networks (e.g., Traffic Flow Sensing and Mobile Phone Data). Crowdsourcing techniques, tailored to incentives applicable in urban environment and to urban life styles, are under investigation to cleanse and enrich those data streams. Last but not least, innovative technologies, methodologies and systems for data fusion, analysis and visualization are researched to magnify their value. *Website*: http://citydatafusion.org
  Project leader: prof. Emanuele Della Valle (Politecnico di Milano)
  Role: Leader of the Worktable 2, addressing the Rijksmuseum Amsterdam Use Case. Responsible for the "Web user demand elicitation (WUDE)" work package. Coordinator of the demonstration and implementation activities.

- *CUbRIK*, Oct. 2011 - January 2013, IP - 7th Framework Programme
  Goals: The CUbRIK project aims to introduce real innovative patterns inside the Multimedia search domain, proposing the paradigm of human-enhanced time-aware multimedia search. The CUbRIK Consortium consists of 15 partners, including research centers, universities and companies.
  Website: http://www.cubrikproject.eu/
  Project leader: prof. Piero Fraternali (Politecnico di Milano)
  Roles: responsible for the "Social and Human Interaction" activities of WP3; responsible for the CUbRIK platform modeling and main author of deliverable D2.1.

- *Search Computing*, Oct. 2009 - January 2013, ERC IDEAS Advanced Grants
  Goals: Search computing focuses on building the answers to complex search queries by interacting with a constellation of cooperating search services, using ranking and joining of results as the dominant factors for service composition.
  Project leader: prof. Stefano Ceri)
  Website: http://www.search-computing.org/
  Role: responsible for the "Human-Computer interfaces for Multi-domain Search", "CrowdSearching", and "SPARQL-Rank" research tracks; responsible for the demonstration activities of the project; designer of the Search Computing architecture; coordinator of the implementation and release activities.

- *PHAROS - Platform for searcHing of Audiovisual Resources across Online Spaces*, 2007 - 2009, IP -

6TH FRAMEWORK PROGRAMME
Goals: To advance audiovisual search from a point-solution search engine paradigm to an integrated search platform paradigm. The PHAROS consortium consisted of 12 partners, including research centers, universities and companies.
Website: http://www.pharos-audiovisual-search.eu/
Local project leader: prof. Piero Fraternali
Alessandro Bozzon Roles: responsible for the work-packages related to the platform modeling and the demonstration activities of the project. Main author of the deliverables related to platform demonstrations; responsible for the coordination of the implementation and integration activities of several platform modules. Organizer and lecturer at the PHAROS Summer School.

- *ESA - MyHMI*, 2005 - 2006, INDUSTRIAL RESEARCH, ITALIAN MINISTRY OF INDUSTRY
  Project leader: prof. Piero Fraternali
  Website: http://esa.como.polimi.it/
  Alessandro Bozzon Roles: responsible for the design of the server-side modules; authors of deliverables about industrial communication protocols and server-side modules specification.

CONFERENCE AND WORKSHOP ORGANISATION

Program Chair and Organisation Committees

- Guest editor of a Special Issue on Human Computation and Crowdsourcing (HC&C) in the Context of the Semantic Web (Semantic Web Journal) [url: http://www.semantic-web-journal.net/blog/call-papers-special-issue-human-computation-and-crowdsourcing-hcc-context-semantic-web]

- Program Chair at at the 16th International Conference on Web Engineering (ICWE 2016) [url: http://icwe2016.webengineering.org/]

- Program Chair at the Australasian Web Conference (AWC) 2015 [url: http://www.uws.edu.au/acsw2015/australasian_computer_science_week_2015/australasian_web_conference_awc_2015]

- General Chair (with Lora Aroyo) of the 1st International Workshop on User Interfaces for Crowdsourcing and Human Computation (CrowdUI '14) [url: https://sites.google.com/site/crowdui2014/]

- General Chair (with Jasminko Novak, Piero Fraternali, Petros Daras, Otto Chrons, Bonnie Nardi, Alejandro Jaimes) of the 3rd International Workshop on Social Media in Crowdsourcing and Human Computation (SoHuman '14) [url: http://eipcm.org/sohuman2014/]

- Demo and Poster Chair (with Marcos Baez) at the 13th International Conference on Web Engineering (ICWE 2013) [url: http://icwe2013.webengineering.org/demos]

- General Chair (with Ian Horrocks and Emanuele Della Valle) of the 1st International Workshop on Ordering and Reasoning (ORDRING '11) [url: http://ordring2011.search-computing.org/]

- General Chair (with Moira Norrie and Sara Comai) of the 2nd International Workshop on DATA Visualization and Integration on the Web (DATAVIEW '11) [url: http://dataview.como.polimi.it/2011/]

- General Chair (with Moira Norrie and Sara Comai) of the 1st International Workshop on DATA Visualization and Integration in Enterprises and on the Web (DATAVIEW '10) [url: http://dataview.como.polimi.it/2010/]

Program Committee Membership

- ACM International World Wide Web Conference (WWW)

- ACM Computer-Supported Cooperative Work and Social Computing (CSCW)

- ACM Web Search and Data Mining (WSDM)

- International Joint Conference on Artificial Intelligence (IJCAI)

- ACM Web Science Conference (WebSci)

- ACM International Conference on Multimedia (ACM MM)

- International Conference on Web Engineering (ICWE)

- Extended Semantic Web Conference (ESWC)

- European Conference on Modelling Foundations and Applications (ECMFA)

- ACM Workshop on Crowdsourcing for Multimedia (CrowdMM)

- International Workshop on Ordering and Reasoning (OrdRing)

- International Workshop on Model-Driven and Agile Engineering for the Web (MDWE)

- International Workshop on Semantic Search over the Web (SSW)

- International Workshop on Crowdsourcing Web search (CrowdSearch)

- "Search Computing - Broadening Structured Data Search" book

- International Workshop on Search, Exploration and Navigation of Web Data Sources (ExploreWeb)

- "Search Computing - Trends and Developments" book (2011, Springer LNCS 6585)

- "Search Computing - Challenges and Directions" book (2010, Springer LNCS 5950)

REFEREE SERVICES

- Internet Computing

- SIGMOD Record

- VLDB Journal

- Software: Practice and Experience

- Transaction on the Web (TWEB)

- Transactions on Intelligent Systems and Technology (TIST)

- Journal Data Information Quality

- Journal on Systems and Software

- Journal on Computing and Cultural Heritage (JOCCH)

- IJWET (International Journal of Web Engineering and Technology)

- Journal Web Engineering (JWE)

Talks,Tutorials, and Developed Prototypes

- "The Use of Social Data in Intelligent Cities & The Social Glass Project", Social Media Week Rotterdam. September 17th 2015. [url: http://socialmediaweek.org/rotterdam/events/the-use-of-social-data-

- "Towards Diversity-Aware Social Data Management", University of Fribourg, Switzerland. August 26 2015. [url: http://agenda.unifr.ch/e/de/1038/]

- "Big Social Data in societal problems and the city context", IBM Benelux, Best Student Recognition Event. Amsterdam. July 8th 2015.

- "Social Data Science for Intelligent Cities", Amsterdam Smart City Event, Amsterdam. June 4th 2015. [url: http://www.smart-circle.org/smartcity/program/]

- "The Role of Social Data in Workforce Modelling and Engagement", Delft Data Science, Seminar: "Social Data Science for Workforce Management". May 28 2015. [url: http://www.delftdatascience.tudelft.nl/research-domains/dds-workforce-management/]

- "Social Data Science for Intelligent Cities", Amsterdam Data Science, City Analytics Seminar. April 10 2015. [url: http://amsterdamdatascience.nl/event/amsterdam-data-science-seminar-city-analyti

- "A brief introduction to human computation", Tuesday, December 10th, 2013, Universite Paris dauphine [url Video: http://www.youtube.com/watch?v=4-3VK4YPhOU]

- "Crowdsourcing Engineering", Dagstuhl Seminar 13361 "Crowdsourcing: From Theory to Practice and Long-Term Perspectives". September, 2013. [url: http://www.dagstuhl.de/en/program/calendar/semhp/?semnr=13361]

- "Toward Next Generation Web Data Management Systems", Friday, October 5th, 2012, Universita della Svizzera Italiana, Faculty of Informatics.

- "Human-enhanced Multimedia Processing in CuBRIK, with SMILA", May 15th, 2012, SMILA Conference, THESEUS - Innovationszentrum, Fraunhofer Heinrich-Hertz-Institut.

- "Human-enhanced search: the CrowdSearcher approach", February 21st, 2012, University of Trento, Department of Information Engineering and Computer Science.

- "Rich Internet Applications and HTML5", May 31st, 2011, University of Lublin.

- "Search Computing", 18th January 2011, University of Oxford, Department of Computer Science.

- "Search Computing", Thursday, June 17th, 2010, University of Trento, Department of Information Engineering and Computer Science.

- "Model-driven development of Search-based Web Applications", September 15th 2009, Universita della Svizzera Italiana, Faculty of Informatics

- "A music recommendation system based on semantic audio segments similarity", 2007, Dipartimento di Elettronica e Informazione, Politecnico di Milano, Milano.

- "Model-driven design of Rich Internet Applications: a WebML approach", L3S Research Center, Hannover (Germany).

SUMMER SCHOOLS

- 2nd Qualinet Summer School 2013 (21 - 24 September 2013, Patras, Greece).

  [url: https://sites.google.com/site/qualinetsummerschool2013/home]

  – Human Computation and Games with a Purpose

- SocialBPM Summer School (July 2012, Como, Italy).

  [url: http://socialbpmschool.webratio.com/]

  – Crowdsource and Human Computation Applications

- PHAROS Summer School (June 2009, Como, Italy).

  [url: http://www.pharos-audiovisual-search.eu]

  – Model-driven development of search based applications
  – Extending the PHAROS platform

TUTORIALS

- "An Introduction to Human Computation and Games With A Purpose" at the 13th International Conference on Web Engineering - ICWE 2013 (July 2013, Aalborg, Debnark). [url: http://hcgwap.blogspot.nl/p/icwe-2013-tutorial.html]

- "Engineering Web Search Applications" at the Tenth International Conference on Web Engineering - ICWE 2010 (July 2010, Vienna, Austria). [url: http://icwe2010.webengineering.org/Conference/tutorials.aspx#T2]

DEVELOPED PROTOTYPES

- Social Glass [url: http://www.social-glass.org]

- Web Information Systems GitHub repository [url: https://github.com/WISDelft]

- CrowdSearcher (2012) [url: http://crowdsearcher.search-computing.org]

- SPARQL-Rank (2012) [url: http://sparqlrank.search-computing.org]

- Search Computing Demonstrators and system (2011) [url: http://demo.search-computing.org, http://www.search-computing.org/software]

- PHAROS Demonstrators (2009) [url: http://www.pharos-audiovisual-search.eu]

Complete publication list

REFEREED INTERNATIONAL JOURNALS

JR.1. Jasper Oosterman, Jie Yang, Alessandro Bozzon, Lora Aroyo, Geert-Jan Houben. "On the impact of knowledge extraction and aggregation on crowdsourced annotation of visual artworks", *Computer Networks* , Volume 90, 29 October 2015, Pages 133?149. Elsevier.

[url: http://www.sciencedirect.com/science/article/pii/S1389128615002315]

JR.2. Alessandro Bozzon, Marco Brambilla, Stefano Ceri, Andrea Mauri, Riccardo Volonterio. "Designing Complex Crowdsourcing Applications Covering Multiple Platforms and Tasks", *Journal of Web Engineering*, Vol. 14, No. 5&6 (2015) 443?473. Rinton Press

JR.3. Marco Balduini, Alessandro Bozzon, Emanuele Della Valle, Yi Huang, Geert-Jan Houben. "Recommending Venues Using Continuous Predictive Social Media Analytics", *IEEE Internet Computing*, vol.18, no. 5, pp. 28-35, Sept.-Oct. 2014

[url: http://www.computer.org/csdl/mags/ic/2014/05/mic2014050028-abs.html]

JR.4. Bojana Bislimovska, Alessandro Bozzon, Marco Brambilla, Piero Fraternali. "Textual and Content-Based Search in Repositories of Web Application Models.", *ACM Transactions on the Web (TWEB)*. Volume 8 Issue 2, March 2014, Article No. 11. ACM New York, NY, USA

[url: http://dl.acm.org/citation.cfm?doid=2579991]

JR.5. Alessandro Bozzon, Piero Fraternali, Luca Galli, Roula Karam. "Modeling CrowdSourcing Scenarios in Socially-Enabled Human Computation Applications.", *Journal on Data Semantics*, December 2013.

[url: http://link.springer.com/article/10.1007%2Fs13740-013-0032-2]

JR.6. Alessandro Bozzon, Claudia Hauff, Geert-Jan Houben. "cItyAM: Managing Big Urban Data for Analyzing and Modelling Cities", *ERCIM News*, Volume 2014, 2014

[url: http://ercim-news.ercim.eu/en98/special/cityam-managing-big-urban-data-for-analyzing-and-modellin

JR.7. Alessandro Bozzon, Marco Brambilla, Stefano Ceri, Davide Mazza. "Exploratory Search Framework for Web Data Sources.", *VLDB Journal*, October 2013, Volume 22, Issue 5, pp 641-663.

[url: http://link.springer.com/article/10.1007%2Fs00778-013-0326-x]

JR.8. Emanuele Della Valle, Stefan Schlobach, Markus Krtzsch, Alessandro Bozzon, Stefano Ceri, Ian Horrocks "Order Matters! Harnessing a World of Orderings for Reasoning over Massive Data", *Semantic Web Journal*, Volume 4, Issue 2, p. 219-231.

[url: http://www.semantic-web-journal.net/content/order-matters-harnessing-world-orderings
-reasoning-over-massive-data]

JR.9. Alessandro Bozzon, Marco Brambilla, Stefano Ceri, Silvia Quarteroni, "A Framework for Integration, Exploration and Search of Location-Based Web Data Services", *IEEE Internet Computing* Vol. 15, no. 6, (2011), pp. 24-31 (ISSN: 1089-7801)

[doi: http://doi.ieeecomputersociety.org/10.1109/MIC.2011.136]

JR.10. Alessandro Bozzon, Sara Comai, Piero Fraternali, Giovannni Toffetti, "Engineering rich internet applications with a model-driven approach," *ACM Transaction on the Web (TWEB)* Vol. 4, no. 2, (2010), pp. 1-47 (ISSN: 1559-1131)

[doi: http://doi.acm.org/10.1145/1734200.1734204]

JR.11. Stefano Ceri, Mamoun Abu Helou, Adnan Abid, Davide Barbieri, Alessandro Bozzon, Daniele Braga, Marco Brambilla, Alessandro Campi, Emanuele Della Valle, Piero Fraternali, Michael Grossniklaus, "Search Computing: an Approach for Managing Complex Search Queries," *IEEE Internet Computing* Vol. 99, pre-print (2010), (ISSN: 1089-7801)

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EDITORIAL CONTRIBUTIONS

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