Dr. Davide Eynard, PhD

Researcher and Lecturer
Università della Svizzera Italiana (University of Lugano)
Faculty of Informatics, Institute of Computational Science
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Personal Information and Education

E-mail:	davide.eynard@usi.ch
Birthplace and date:	February, 11th 1976, Monza (MB), Italy
Homepage:	http://davide.eynard.it
LinkedIn profile:	http://www.linkedin.com/profile/view?id=4698776

2006 – 2008	*Doctor of Philosophy (PhD) in Computer Engineering*, Politecnico di Milano, Italy. Thesis: "A Virtuous Cycle of Semantics and Participation" (topic: enhancing participative systems with semantic technologies).
1994 – 2005	*Master Degree in Computer Engineering*, Politecnico di Milano, Italy. Thesis: "Design and Development of a Reasoner for Some Families of Description Logics".

Research Experience

My research activity has always dealt with *knowledge* at different levels: how it can be formalized and collectively produced (Description Logics, Social Semantic Web), how it can be extracted from unstructured or semi-structured data (Social Web mining, ontology extraction from text), and how it can be exploited to make sense of vast amounts of information (machine learning, pattern recognition). My current work focuses on the concept of *similarity* between objects, its extension to different *modalities/views* and its application to problems in shape analysis, image processing, and machine learning.

2009 – now	Post-doctoral fellow at Università della Svizzera Italiana, Lugano, Switzerland. **2012-now**: ERC starting grant project COMET (foundations of COmputational similarity geoMETry), directed by prof. Michael Bronstein. **2011**: Hasler Stiftung (http://www.haslerstiftung.ch) project "Developing a conceptual framework for agreement technologies", directed by prof. Marco Colombetti. **2009-2010**: KTI (http://www.bbt.admin.ch/kti/) project "Web2Rism", aimed at building a business intelligence software for the tourism field which extracts User Generated Contents (UGC) from the Web and analyzes the online reputation of a given destination. Head of project: prof. L. Cantoni.
2009 – 2010	Post-doctoral fellow at Politecnico di Milano, Italy. **2010**: funded by the European Research Council (ERC), responding to the 2008 Call for "IDEAS Advanced Grants", project title "Search Computing" (http://www.search-computing.it). Main topic: a semantic extension for the registration of Service Marts in the context of Search Computing. Head of project at PoliMI: prof. Stefano Ceri. **2009**: funded by the company Noustat, Milano, Italy (http://www.noustat.it/), project title "Extraction", aimed at developing a tool for the semiautomatic extraction of ontologies from natural text. Head of project at PoliMI: prof. Andrea Bonarini.
2008	Summer internship in the Chameleon group in the Business Optimization Lab at HP Labs, Palo Alto, California, US. As a result, a framework has been developed to allow users store their browser history and bookmarks in the RDF format, and then use this information to provide a personalized browsing experience through a Firefox extension.
2007	Summer internship in the Personal Collaboration group in the Mobile Media Systems Lab at HP Labs, Palo Alto, California, US. As a result, an IMAP plugin for the SquirrelRDF application (http://jena.sf.net/SquirrelRDF) has been developed.

Teaching

2005 - now	Co-lecturer (classes on data clustering and R) of "Pattern Analysis and Machine Intelligence" (M.S.) and "Metodologie per Sistemi Intelligenti" at Politecnico di Milano, Italy.
2014	TA (classes on Android development) of "Software Atelier 2" (B.S.) at Università della Svizzera Italiana, Faculty of Informatics.
2013	Co-lecturer (classes on Internet technologies) of "Seminario di didattica disciplinare di comunicazione" at SUPSI, dipartimento di Formazione e Apprendimento, Locarno, Switzerland.
2010 – 2012	Lecturer of "Internet Technology" (M.S.) and "Tecnologie di Internet" (B.S.) at Università della Svizzera Italiana, Faculty of Communication sciences.
2009 – 2012	Co-lecturer of "Software Technology 2" (M.S.) at Università della Svizzera italiana, Faculty of Communication sciences.

List of Publications

Journals:

2014	D. Eynard, A. Kovnatsky, M. M. Bronstein, K. Glashoff, A. M. Bronstein. Multimodal manifold analysis using simultaneous diagonalization of Laplacians. IEEE Trans. Pattern Analysis and Machine Intelligence (PAMI). *Under review*.
	D. Eynard, A. Kovnatsky, M. M. Bronstein. Laplacian colormaps: a framework for structure-preserving color transformations. Computer Graphics Forum (EUROGRAPHICS), Vol. 33/2, pp. 215—224, 2014.
2013	D. Eynard, L. Mazzola, A. Dattolo. Exploiting tag similarities to discover synonyms and homonyms in folksonomies. Software: Practice and Experience, Vol. 43/12, pp. 1437—1457, 2013.
2012	A. Inversini, D. Eynard. Harvesting User Generated Picture Metadata To Understand Destination Similarity. Journal of Information Technology & Tourism, Vol. 13/4, pp. 341—351, 2012.
2010	S. Ceri, A. Abid, M. Abu Helou, D. Barbieri, A. Bozzon, D. Braga, M. Brambilla, A. Campi, F. Corcoglioniti, E. Della Valle, D. Eynard, P. Fraternali, M. Grossniklaus, D. Martinenghi, S. Ronchi, M. Tagliasacchi, S. Vadacca. Search Computing: Managing Complex Search Queries. IEEE Internet Computing, Vol. 14/6, pp. 14—22, 2010.

Conference proceedings:

2014	A. Kovnatsky, D. Eynard, M. M. Bronstein: Gamut Mapping with Image Laplacian Commutators. IEEE International Conference on Image Processing (ICIP 2014).
2013	P. Ciuccarelli, G. Lupi, D. Eynard, F. Manfredini, M. Matteucci, G. Caviglia, P. Dilda, F. Marfia, M. Azzi. Telltale: visualizing the use and perception of cities through digital traces. 11th EAEA Envisioning Architecture: Design, Evaluation, Communication Conference. 2013.
2012	D. Eynard, A. Inversini, L. Gentile. Finding similar destinations with Flickr Geotags. ACM Symposium on Applied Computing (SAC 2012).
	A. Inversini, D. Eynard, L. Gentile, E. Marchiori. Destinations Similarity Based on User Generated Pictures' Tags. Information and Communication Technologies in Tourism (ENTER 2012).
2011	A. Dattolo, D. Eynard, L. Mazzola. An Integrated Approach to Discover Tag Semantics. ACM Symposium on Applied Computing (SAC 2011).
	E. Marchiori, D. Eynard, A. Inversini, L. Cantoni, F. Cerretti.:Harvesting Online Contents: an Analysis of Hotel Reviews Websites. Information and Communication Technologies in Tourism (ENTER 2011).
2010	L. Mazzola, D. Eynard, R. Mazza. GVIS: a framework for graphical mashups of heterogeneous sources to support data interpretation. IEEE International Conference on Human System Interactions (HSI 2010).
	D. Eynard, F. Marfia, M. Matteucci. On the use of correspondence analysis to learn seed ontologies from text. International Conference on Knowledge Engineering and Ontology Development (KEOD 2010).

S Ceri, A Abid, M Abu Helou, D Braga, A Bozzon, M Brambilla, A Campi, F Corcoglioniti, E Della Valle, D Eynard, P Fraternali, M Grossniklaus, D Martinenghi, S Ronchi, M Tagliasacchi, and S Vadacca: *"Search Computing Systems"*, 18th Italian Symposium on Advanced Database Systems (Extended Abstract). 2010.

2008   S. Bindelli, C. Criscione, C. A. Curino, M. L. Drago, D. Eynard, G. Orsi. Improving Search and Navigation by Combining Ontologies and Social Tags, Confederated International Workshops and Posters on On the Move to Meaningful Internet Systems (OTM 2008).

D. Eynard, M. Colombetti. Exploiting User Gratification for Collaborative Semantic Annotation. International Workshop on Semantic Web User Interaction (SWUI 2008).

2007   D. Laniado, D. Eynard, M. Colombetti. A semantic tool to support navigation in a folksonomy. 18th conference on Hypertext and Hypermedia (Hypertext 2007).

D. Eynard. Research on collaborative information sharing systems. Knowledge Web PhD Symposium at ESWC 2007.

Book chapters:

2014   D. Eynard, M. A. Javarone, M. Matteucci. Clustering Algorithms. In R. Alhajj, J. Rokne (Eds.), Encyclopedia of Social Network Analysis and Mining. Springer, 2014.

2013   M. P. Singh, M. Arrott, T. Balke, A. K. Chopra, R. Christiaanse, S. Cranefield, F. Dignum, D. Eynard, E. Farcas, N. Fornara, F. Gandon, G. Governatori, H. K. Dam, J. Hulstijn, I. Krueger, H. P. Lam, M. Meisinger, P. Noriega, B. T. R. Savarimuthu, K. Tadanki, H. Verhagen, and S. Villata. The Uses of Norms. In G. Andrighetto, G. Governatori, P. Noriega, L. W. N. van der Torre (Eds.), Normative Multi-Agent Systems (4), pp. 191—229, Schloss Dagstuhl-Leibniz-Zentrum fuer Informatik, Dagstuhl, Germany, 2013.

2012   D. Eynard, M. Matteucci, F. Marfia. A Modular Framework to Learn Seed Ontologies from Text. In M. Pazienza, & A. Stellato (Eds.), Semi-Automatic Ontology Development: Processes and Resources (pp. 22—47). IGI Global, 2012.

Technical reports:

2008   D Eynard. Using semantics and user participation to customize personalization. HP Labs Technical Report *HPL-2008-197*, HP Labs, Palo Alto, Dec 2008.

2007   D Eynard, J Recker, C Sayers. An IMAP Plugin for SquirrelRDF. HP Labs Technical Report *HPL-2007-161*, HP Labs, Palo Alto, Oct 2007.

Books (non-scientific):

2000   L. Cattaneo, D. Eynard: *"Linux senza fatica"*, McGraw-Hill, Milano, Italy, 2000.

D. Eynard, M. Acquafresca: *"A scuola con Internet Explorer 5"*, Jackson Libri, Milano, Italy, 2000.

1999   D. Eynard: *"One Shot Internet Explorer 5"*, Jackson Libri, Milano, Italy, 1999.

1998   D. Eynard: *"Internet Explorer 4 No Problem"* and *"Internet Explorer 4 Mini No Problem"*, McGraw-Hill, Milano, Italy, 1998.

International Conference Program Committee and Journal Reviewer

Reviewer for the following journals: IEEE Transactions on Fuzzy Systems (TFS), International Journal on Artificial Intelligence (IJAIT). Committee member of the following conferences/workshops: International Conference on Web Information Systems and Technologies (WEBIST) 2014/2013/2012; International Workshop on Community-based Evolution of Knowledge-intensive Systems (COMBEK) 2009/2008; Workshop on Social Aspects of the Web (SAW) 2009/2008; International Workshop on Interacting with Multimedia Content in the Social Semantic Web (IMC-SSW) 2008.

Industrial Experience

From 1998 to 2005 I have worked as a consultant in the field of informatics. My most significative collaboration has been the one with the software house *TTY Creo S.r.l.* (via Prealpi 13, Giussano - Italy), from 2001 to 2004. There I covered different positions: *teacher for internal courses* on Linux and the Perl programming language, *Linux system administrator*, *Analyst*, *Programmer*, and **Project Manager**. I have led a Web development project for the insurance company Zurich, mainly using Perl and PHP and accessing Oracle and MySQL databases. I also collaborated to a project for Poste Italiane, managing their database with stored procedures in Microsoft SQL server, and performed the merging of huge data repositories from insurance companies on Oracle and Firebird databases.

Personal skills

Mother tongue: Italian

Other languages:	**English**
Reading skills:	excellent
Writing skills:	excellent
Verbal skills:	excellent

I can program in different languages: Python, Java, and MATLAB are the ones I currently use more often, but I also have an advanced knowledge of Perl, PHP, C, and ASM (as I have both used and taught them extensively) and I can quickly learn new ones. I am a computer security passionate and I won, together with the team of Politecnico di Milano, the "Capture the flag" contest twice. I have been quite deep, for many years, into reverse engineering and software protections, cryptography, and steganography. I have a deep knowledge of the many technologies (protocols, data formats, languages) which make up the Internet and I like to experiment with them (see my posts at http://davide.eynard.it).

Many years of sports and team work made me accustomed to relationship and cooperation with people. I have always been an active member in many groups, differing in size and type (collectives, non-profit associations, clubs, virtual communities), and I love to talk with people different from me for culture, ideas and interests.

I have good organisational skills, mainly developed at work where I had to coordinate, as a project chief, a group of programmers, and had to work on the design of many different applications. I have managed an online community for years and I have collaborated to the organisation of many "real life" events (meetings, courses, seminars).

I have been running a website for many years (http://3564020356.org), at the same time an online game and a community, based on riddles about cryptography, steganography, reverse engineering and Web search. Since 2000 I present seminars of different complexity (from basic to very technical) about computers. I have been writing (non scientific) articles since 1997, and published them on the Internet and on specialized magazines.

Lugano, December, 4th 2014.