

Francesco Osborne's Curriculum

Personal Data

Francesco Osborne

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Current Position

Research Associate At the Knowledge Media Institute of the Open University in Milton Keynes, UK. Working on the MKSmart project (<http://www.mksmart.org/>) and on the Rexplore project (<http://technologies.kmi.open.ac.uk/rexplore>). My research focuses on Semantic Web, Data Mining and User Modelling. Over the past three years I worked on the development of innovative algorithms for i) automatically identifying research areas and structuring them in a semantic network of scholarly relations and ii) automatically generating a variety of analytics and visualizations of research dynamics. I am the main developer of Rexplore, a system which leverages novel solutions in large-scale data mining, semantic technologies and visual analytics, to provide an innovative environment for exploring and making sense of scholarly data. I am proudly collaborating to the Research Articles in Simplified HTML (RASH) Framework (<https://github.com/essepuntato/rash>), which includes a markup language defined as a subset of HTML+RDF for writing scientific articles, and related tools to convert it into different formats and to extract data from it.

Education

- 2011-2015** **PhD** in Computer Science from the University of Torino, Italy. Defended on the 5th of February 2015.
Dissertation Topic: *Propagating User Interests In Ontology-Based User Models.*
- 2008-2010** **Master Degree in ICT** at the University of Torino, with honours.
- 2001-2008** **Bachelor Degree in Communication Sciences**, Faculty of Letter and Philosophy, University of Torino.

(July 2011) European Summer School on Ontological Engineering and the Semantic Web, **SSSW 2011**, July 10-16 2011 in Cercedilla near Madrid, Spain.

Teaching Activities

2010-2013 Teaching HTML and Digital Literacy at the Faculty of Letters and Philosophy, University of Torino.

2006-2008 Teaching Video Journalism at the Faculty of Letters and Philosophy, University of Torino.

Trainee Supervisions: Supervised several students achieving training periods, from several educational levels.

Technical Skills and Competences

Good **programming skills** with many different languages (Java, Javascript, PHP, etc.), using object-oriented methodologies (UML, design patterns). Knowledge and experience in database technologies and administrating databases (MySQL, PostgreSQL).

Competence and experience concerning **Semantic Web Technologies** and **Recommender Systems**.

Competence as software designer, software developer and programmer acquired while working at a number of research related software projects (CS-UDD, OBUM, Rexplore). Proficiency in GNU/Linux web server administration and web development. Competence in the use of professional camcorders and video editing.

Languages

Italian: Mother tongue.

English: Read, written and spoken. (I lived in UK since 2013)

Main Developments

- **Smart Topic Miner** (<http://rexplore.kmi.open.ac.uk/STM/>): A tool which uses semantic web technologies to classify scholarly publications on the basis of a very large automatically generated ontology of research areas. It was developed to support the Springer Nature Computer Science editorial team in classifying proceedings.
- **Rexplore** (<http://technologies.kmi.open.ac.uk/rexplore/>): A system which leverages novel solutions in large-scale data mining, semantic technologies

and visual analytics, to provide an innovative environment for exploring and making sense of scholarly data.

- **OBUM:** A tool for propagating user interest in ontology-based user models and proposing content-based recommendations.
- **CS-UDD:** A system for discovering new attributes of a user by using the large amounts of public data present on Social Networks.

Others

- **Co-chair of the** “Semantics, Analytics, Visualisation: Enhancing Scholarly Data” Workshop (SAVE-SD 2015-2016 at WWW).
- **Member of the program committee of:** WOSP 2014, WLT 2014, WOSP 2015, BigScholar 2015, SAVE-SD 2015, VOILA 2015, BigScholar 2016, SAVE-SD 2016, WOSP 2016, ISWC P&D 2016, VOILA 2016, EKAW 2016.
- **Reviewer for:** International Journal of Human-Computer Studies, Sensors, UMAP 2013, ISWC 2014, K-CAP 2015, VOILA 2015, PRIVON2015, STAIRS 2016, ISWC 2016.
- He was **awarded 1st prize at the Semantic Publishing Challenge** at the 2014 European Semantic Web Conference.
- **Finalist for the best paper** award in ESWC 2014 and ICIDS 2011.

Selected Publications

1. Osborne, F., Salatino, A., Birukou, A., Motta, E. (2016) Smart Topic Miner: Supporting Springer Nature Editors with Semantic Web Technologies. Poster at International Semantic Web Conference 2016, Kobe, Japan.
2. Osborne, F., Salatino, A., Birukou, A., Motta, E. (2016) Automatic Classification of Springer Nature Proceedings with Smart Topic Miner. International Semantic Web Conference 2016, Kobe, Japan.
3. Ribaupierre, H., Osborne, F. and Motta, E. (2016) Combining NLP and semantics for mining software technologies from research publications, Poster at World Wide Web 2016 Publications
4. Iorio, A., Gonzalez-Beltran, A., Osborne, F., Peroni, S., Poggi, F. and Vitali, F. (2016) It ROCS! The RASH Online Conversion Service, Demo at World Wide Web 2016
5. Likavec, S., Osborne, F. and Cena, F. (2016) Property-based semantic similarity and relatedness for improving recommendation accuracy and diversity, International Journal on Semantic Web and Information Systems (IJSWIS), 11, 4, IGI Global
6. Osborne, F. and Motta, E. (2015) Klink-2: Integrating Multiple Web Sources to Generate Semantic Topic Networks, International Semantic Web Conference 2015, Bethlehem, Pennsylvania, USA
7. Iorio, A., Nuzzolese, A., Osborne, F., Peroni, S., Poggi, F., Smith, M., Vitali, F. and Zhao, J. (2015) The RASH Framework: enabling HTML+RDF submissions in scholarly venues, Poster at International Semantic Web Conference 2015, Bethlehem, Pennsylvania

8. Osborne, F., Scavo, G. and Motta, E. (2014) Identifying diachronic topic-based research communities by clustering shared research trajectories, Extended Semantic Web Conference 2014, Crete, Greece
9. Carmagnola, F., Osborne, F. and Torre, I. (2014) Escaping the Big Brother: An empirical study on factors influencing identification and information leakage on the Web, Journal of Information Science
10. Carmagnola, F., Osborne, F. and Torre, I. (2014) User data discovery and aggregation: The CS-UDD algorithm, Information Sciences, 270, 20, pp. 41-72, Elsevier
11. Osborne, F. and Motta, E. (2014) Understanding research dynamics, Extended Semantic Web Conference 2014, Crete, Greece.
12. Osborne, F., Peroni, S. and Motta, E. (2014) Clustering Citation Distributions for Semantic Categorization and Citation Prediction, Workshop: LISC 2014 at International Semantic Web Conference 2014, Riva Del Garda, Italy
13. Osborne, F. and Motta, E. (2014) Rexplore: Unveiling the Dynamics of Scholarly Data, Digital Library 2014, London, UK
14. Osborne, F. and Motta, E. (2014) Inferring Semantic Relations by User Feedback, EKAW 2014, Linköping, Sweden
15. Osborne, F., Scavo, G. and Motta, E. (2014) A Hybrid Semantic Approach to Building Dynamic Maps of Research Communities, EKAW 2014, Linköping, Sweden
16. Chiabrando, E., Furnari, R., Likavec, S., Osborne, F., Picardi, C. and Dupré, D. (2014) TellEat: Sharing Experiences on the Move, HCI International 2014, Heraklion, Crete, Greece
17. Osborne, F., Motta, E. and Mulholland, P. (2013) Exploring Scholarly Data with Rexplore, International Semantic Web Conference, Sydney, Australia
18. Osborne, F. and Motta, E. (2013) Exploring Research Trends with Rexplore, Workshop: 2nd International Workshop on mining scientific publications at Joint Conference on Digital Libraries 2013
19. Cena, F., Likavec, S. and Osborne, F. (2013) Anisotropic propagation of user interests in ontology-based user models, Information Sciences
20. Osborne, F., Cena, F. and Likavec, S. (2013) Granular semantic user similarity in the presence of sparse data, AI*IA 2013, Torino, Italy
21. Osborne, F. and Motta, E. (2012) Mining Semantic Relations between Research Areas, International Semantic Web Conference, Boston, MA
22. Motta, E. and Osborne, F. (2012) Making Sense of Research with Rexplore, Demo at International Semantic Web Conference, Boston, MA
23. Cena, F., Likavec, S., Osborne, F. (2012) Property-based interest propagation in ontology-based user model. In UMAP 2012, Monreal, Canada.
24. Osborne, F. (2011) A new approach to social behavior simulation: the Mask Model. To appear in ICIDS 2011, Vancouver, Canada.
25. Cena, F., Likavec, S., Osborne, F. (2011) Propagating user interests in ontology-based user model. In AI*IA 2011, Palermo, Italy.
26. Osborne, F. (2011) The Mask Model: a new approach to NPC behavior simulation. PhD seminar Worlds, Stories, and Game. Copenhagen, Denmark.
27. Carmagnola, F., Osborne, F., Torre, I. (2010) User data distributed on the social web: how to identify users on different social systems and collecting data about them. In HetRec 2010- International Workshop on Information Heterogeneity and Fusion in Recommender Systems. Barcellona, Spain,

28. Carmagnola, F., Osborne, F., Torre, I. (2009) Cross-Systems Identification of Users in the Social Web. In 8th IADIS International Conference WWW/INTERNET, Rome, Italy.