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Research fellowship

***Conceptual spaces, opinion dynamics and cultural conflict: a computational linguistics analysis***

Università Ca' Foscari Venezia (Italian law 30 December 2010, n.240, art. 22)

The Department of Management at Università Ca' Foscari Venezia invites applications for a three-year post-doc grant within a 4-year large-scale research program **ODYCCEUS - Opinion Dynamics and Cultural Conflict in European Spaces Grant Agreement n. 732942 del 26/10/2016, CUP H72F16000760006 H2020-FETPROACT- 2016-2017 RIA funded by the EU (FET Proact 2016), (WP1, t1.2; WP4, t4.2, t4.3,t4.4 WP5 t5.1 WP8 t8.5)** under the supervision of prof. Massimo Warglien.

The successful candidate will have advanced skills in the areas of natural language processing, language change and history, and contribute with models, algorithms and empirical analyses to the project.

The research shall be carried out in English.

The main expected deliverables include the following: scientific papers and algorithms.

This project will develop a fine-grained representation of cultural conflicts based on conceptual spaces and sophisticated text analysis including applications of game theory to textual analysis. and new models of alignment and polarization dynamics. This project will also contribute to the development an open modular platform, called Penelope, that integrates tools for the complete pipeline, from data scraped from social media and digital sources, to visualization of the analyses and models developed by the project. The platform features an infrastructure allowing developers to provide new plug-ins for additional steps in the pipeline, share them with others, and jointly develop the platform as an open source community.

"Conceptual spaces" is a paradigm that has provided geometric foundations for representing individual representations (Gardenfors 2000) as well as meaning as an interactive phenomenon (Warglien and Gardenfors 2013). While conceptual spaces have been used to model representations of basic sensorial experience (e.g. color), much work needs to be done to develop geometric models of higher level representations such as those of political spaces or cultural frames (Entman 1993). The project will try to develop ways to model such higher level representations and to extract them from textual data analysis. Furthermore, the project will leverage on recent developments in the field of Natural Language Processing (Levy et al. 2015, Roberts et al. 2016) to address issues of dynamics of conceptual spaces. As the development of game theoretic models of cultural frames is major goal of the Odyceus network, the exploration of (evolutionary) game theory as a tool to analyze the dynamics of frames will be a relevant theme of the current project.

A second relevant goal of the current project is to analyze the interactions between cultural frames dynamics and social networks. Network science may provide a framework to conceptualize and model cultural history (Schich et al. 2014) and opinion diffusion (Goel et al. 2015).

#### **Who can apply:**

Prospective candidates are expected to hold a doctoral degree and relevant experience on the research topic and scientific-professional curriculum suitable to the development of research activities related to the fellowship.

**Duration of contract:** 36 months (expected starting date: **June 2017**).

**Stipend:** The gross fellowship amounts to Eur. 29.400,00 per year. The fellowship is tax-exempt, but it is subject to deductions to cover social security and pension benefits, as mandated by the Italian law.

**Deadline for submission of applications:** **April 27<sup>th</sup> 2017, 12 p.m. (Italian time)**

**How to apply:**

Candidates should submit:

1. The application form;
2. A CV in European format, duly dated and signed ([link](#));
3. A copy of a valid identity document (either identity Card or Passport);
4. All documents, qualifications and publications relevant for the selection procedure (please, see the notice [link](#));
5. Two signed letter of references (this can be sent separately to [segreteria.management@unive.it](mailto:segreteria.management@unive.it)).

**How to submit your application:**

Applications should be submitted: online application procedure, if available on the notice webpage

<http://static.unive.it/domandeconcorso-en/accesso/dma-warglien>.

The candidate, after the uploading, will receive a submission number and an e-mail acknowledging receipt of his/her application.

The candidate may update the application using the link provided in the e-mail, up to the deadline of **April 27<sup>th</sup> 2017, 12 p.m.** (Italian time). The candidate can use the contacts below and ask for support until **April 21<sup>th</sup> 2017, 12 p.m.** (Italian time) prior to the deadline.

We will inform that the University will be closed on the following days: **April 24<sup>th</sup> - 25<sup>th</sup> 2017**.

It is highly recommended to start your application well before the deadline.

**Selection procedure:**

Short-listed candidates will be invited for interview on **May 11<sup>th</sup> 2017, at 10 a.m. (italian time)** in the **Università Ca' Foscari Venezia – Dipartimento di Management, San Giobbe – Cannaregio, 873, room Aula Volpato – second floor.**

The short list will be published on ([link](#)) on **May 9<sup>th</sup> 2017**.

Candidates living more than 200 Km far from Venice may ask to hold a video interview.

**Information and contacts:**

Candidates may find further details about the application process and the research project in the official call published on ([link](#)).

Preliminary inquiries about the research program should be addressed to Massimo Warglien <[warglien@unive.it](mailto:warglien@unive.it)>

Additional information about the application procedure may be obtained from Lisa Cagnin <[segreteria.management@unive.it](mailto:segreteria.management@unive.it)>.