

**Fully funded 2-year full-time Postdoc research position
In Opinion Mining in Management
jointly between the ETIS Lab UMR 8051
and the Management Department of ESSEC Business School**

The Paris Seine University under the recently established collaboration between the ETIS Lab (UMR 8051) of the University of Cergy Pontoise and the Management Department of the ESSEC Business School has an immediate opening for a post-doctoral researcher. The position is funded under the prestigious **Paris Seine Initiative of Excellence** and has secured funding for two (2) years. The post-doctoral researcher will work jointly and under the supervision of Professor Fabrice Cavarretta (ESSEC Business School) and Professor Dimitris Kotzinos (ETIS / Paris Seine University) and their respective groups. This postdoctoral project will take an innovative multidisciplinary approach by developing Data Science (Big Data, Machine Learning and/or AI) based techniques to mine opinion models and study their evolution.

CONTEXT

Computer Sciences/Big Data/AI

Techniques and methods to be developed belong to the following Big Data /AI areas of current computer science research:

- modelling and capturing of opinions/beliefs using Big Data, Machine Learning and Artificial Intelligence methods,
- learning from dynamic data sources (e.g., online discussions) or other textual resources
- information diffusion and opinion dynamics in social networks

RESEARCH OBJECTIVES

Substantive Application

We plan to capture and model the opinions of entrepreneurs as they are shared in social media or other communication means. This should allow to verify and further elaborate on the properties and dynamics of opinions in communities of entrepreneurs and establish models that captures these opinions and their evolution. This would provide information on their validity and robustness. There is also great potential if such analyses can be extended to other managerial contexts, for instance to the belief system of employees inside a firm, using data sources such as email trails.

Computer Science/Big Data/AI

Modelling and capturing opinions and their evolution in a managerial context is a new exciting area of interdisciplinary research. The work will combine properties arising from the social (online and professional) networks of the management personnel with text analytical functions in order to form a model of opinions (beliefs) and then track the evolution of this model through subsequent interactions. We plan to do this through a series of learning and mining tasks over dynamic data, understand the boundaries of the existing algorithms for such tasks and propose new ones when needed. Besides the evolution of the opinions, we are interested in identifying the dynamics and correlations that affect the changes that will be observed. We would like to push the boundaries of the opinion mining and dynamics works while applying them to better understand managerial cognitions.

Key Responsibilities and Tasks:

- Developing new measures and methods for gathering opinion related data streams
- Developing new opinion mining methods, opinion models as well as algorithms to track their evolution
- Work on the existing multidisciplinary collaboration between Professors Kotzinos and Cavareta
- First-authoring top-tier peer-reviewed journals and conference proceedings
- Presenting findings at national/international scientific conferences

- Develop a toolkit that can be used for subsequent opinion mining studies in management

Qualifications and Skills/Experiences:

- Ph.D. in Computer Science, Data Science, Artificial Intelligence/Machine Learning, or a related field. Applicants that will defend their PhDs before or around the beginning of the project (12/2018) are also welcome to apply.
- Strong analytical and programming skills. Experience in tools used for big data analytics (in R, Python, Java or all) and in Cloud Computing environments is a plus
- Strong oral and written communication skills
- Demonstrated experience preparing conference presentations, research findings, and manuscripts for submission to peer-reviewed journals
- Language: the working language will be English

LOCATION

Cergy-Pontoise (suburb of Paris France).

The post-doctoral researcher will be located at the ETIS Lab (UMR 8051) at the University of Cergy Pontoise.

TENTATIVE STARTING DATE:

January 2019 or as soon as possible thereafter.

APPLICATION

If interested, please send your application (including a detailed CV, university transcripts, a copy of the PhD thesis and/or scientific papers if available, as well as a list of personal references and a motivation letter) in PDF format to Professor Dimitris Kotzinos (Dimitrios.Kotzinos@u-cergy.fr) and cc: Professor Fabrice Cavarretta (cavarretta@essec.edu) with title "Postdoc INEX". Further informal enquiries are also welcome.

Applications will be welcome until the position is filled, those submitted before 31/01/2019 will be considered in priority.