

Proposition of a Doctoral Position

Service innovation in smart cities using open data: investigating opportunities, challenges and new data governance

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- **Co direction:** Pr. Khaled Bouabdallah, University of Lyon, GATE Laboratory, Economics, <https://www.gate.cnrs.fr/?lang=en>, UMR 5824
- **Position start:** from September 2017
- **Duration:** 3 years
- **Academic fields:** Management, Management of Information Systems, Innovation, Informatics, Public economics
- **Location:** Grenoble, or other cities in Auvergne-Rhone Alps Region, France
- **Income:** it is provided by the Auvergne-Rhone Alps Region (20 KE a year for 2 years). The third year income will be negotiated with a company or a public organization.

Abstract:

This PhD will explore the potential of innovating services within smart cities using open data. Several cities (among them Grenoble, Lyon or Montréal) have recently opened a public open data portal that provides several sets of data (catering, transportation, health, quality of water and air etc.) available to a whole range of different types of stakeholders including other public institutions, private companies, associations, and citizens. By making this data open and accessible to all, the opportunities for smart cities to provide innovative and citizen services remain as yet unexplored. For instance, use by institutions to optimize transportation flows; helping high street retailers to increase footfall and attract new customers, improving public services. But while all these opportunities exist, there are also challenges linked to analytics and mining of open data, especially those related to data protection and the ability to rebuild ostensibly anonymous open data from different sources. Consequently these emergent risks must be fully understood in order to develop robust data governance and information management policies and infrastructures to enable the innovation potential of this open data.

Key words: open data, service innovation, data governance, data analytics, smart cities



Approach:

The approach of this PhD includes mixed methods involving both qualitative and quantitative approaches. In the first instance, extensive discussions with experts in practice both from smart cities, private companies and citizens in order to understand the new practices in terms of service innovation with open data and the opportunities that this can afford. In addition, a questionnaire that would identify the level of information of citizens on open data and their tolerance and acceptance of levels of risk related to citizen data stored by public sector organizations. Finally, a range of different data mining and analytics approaches will be applied to open data and data of private organizations to explore further the potential values and risks.

Laboratories:

- **Main laboratory for the PhD student: CERAG** dedicated to research in management sciences, CERAG (Center for Studies and Applied Research in Management) is a joint research unit (FRE 3748) affiliated to the University of Grenoble-Alps in Grenoble and CNRS (Scientific Direction section 37). It has 149 members including 94 PhD students attached to five research teams, 49 researchers and lecturers (IAE Grenoble, IUT de Grenoble and Valence, INP Grenoble, Grenoble School Management).

The laboratory is particularly active in higher education and research, as Grenoble is one of the largest university towns in France with over 60,000 students. CERAG has its own infrastructure with 750 m² of office space in a completely renovated building on the campus of Saint-Martin d'Hères. CERAG works closely with the Graduate School of Management Sciences: <http://ed275.upmf-grenoble.fr/>. For further information: <http://www.cerag.org/>

- **Second laboratory for the PhD student: GATE, Economics,** <https://www.gate.cnrs.fr/?lang=en>, UMR 5824

Profile:

- The candidate needs to have completed a Master Research (or MPhil) degree in Business and Management, or in Economics, or in Informatics with a major element related to management, or a post-graduate degree with a strong research component, in either the business and management field or a closely associated social science field
- The candidate needs to have good communication and organizational skills
- The candidate is a motivated, self-reliant and organized individual, who not only enjoys collaborating with others (laboratory, smart cities, associations) but is also able to work individually towards pre-defined targets
- The candidate is fluent in written and spoken English, with a minimum level in French (that could be acquired during first year) OR is fluent in French with a rather good level in English

Working conditions:

The successful candidate will work in the Management of Information Systems research team including faculty and doctoral students based in France. He/she will follow 120 hours of credit courses provided by the Doctoral School of Management and Business Administration. This programme develops a series of instruments and opportunities to improve the capacities of Phd students. In addition there will be opportunities to build their knowledge and skills in data analytics and data mining techniques with developmental courses and additional tutorial support.

Professional opportunities:

This PhD programme provides the following principal career options:

- The academic world
- Business management and informatics positions in companies (consultancy, other)
- High-ranking positions in public administration

Contacts: Please send your CV and a letter of motivation including previous publications if any to:

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