

29/07/2022



# Full-time postdoc position in Barcelona, ERC project. Data science/social science. Universitat Pompeu Fabra

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Where to apply

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Application Deadline: 25/08/2022 23:00 - Europe/Brussels

Contact Details

**Where to send your application.**

**COMPANY**

Pompeu Fabra University

**WEBSITE**

<https://forms.gle/LS61d2yaryvMW4r68>

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Hiring/Funding Organisation/Institute

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**ORGANISATION/COMPANY**

Pompeu Fabra University

**COUNTRY**

Spain

**DEPARTMENT**

Economics and Business

**CITY**

Barcelona

**ORGANISATION TYPE**

Higher Education Institute

**STATE/PROVINCE**

Catalonia

**WEBSITE**

<http://www.econ.upf.edu>

**POSTAL CODE**

08005

**E-MAIL**

[mariona.novoa@upf.edu](mailto:mariona.novoa@upf.edu)

**STREET**

Ramon Trias Fargas, 25

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**ORGANISATION/COMPANY**

Pompeu Fabra University

**LOCATION**

Spain › Barcelona

**RESEARCH FIELD**

Computer science

Economics

Management sciences

Political sciences

Psychological sciences

Sociology

**TYPE OF CONTRACT**

Temporary

**JOB STATUS**

Full-time

**HOURS PER WEEK**

37.5

**RESEARCHER PROFILE**

Recognised Researcher (R2)

**OFFER STARTING DATE**

19/09/2022

**APPLICATION DEADLINE**

25/08/2022 23:00 - Europe/Brussels

**EU RESEARCH FRAMEWORK  
PROGRAMME**

H2020 / ERC

**REFERENCE NUMBER**H2020-2017-CoG-InfoSampCollect-  
772268

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## OFFER DESCRIPTION

**Funding institution:** European Research Council (ERC).

**Project:** ERC Consolidator grant “The Implications of Selective Information Sampling for Individual and Collective Judgments” (2018-2024), H2020-2017-CoG-InfoSampCollect-772268. The project aims to understand how the information to which people are exposed (via their own behaviors, or AI systems that control what they see on social media platforms) affect their beliefs, preferences, and behaviors.

**Principal Investigator:** Prof. Gaël Le Mens: <https://sites.google.com/view/gael-le-mens/home>

**Job description**

The research project “The Implications of Selective Information Sampling for Individual and Collective Judgments” (InfoSampCollect) funded by the European Research Council (ERC) is recruiting up to 2 post-doctoral researchers to contribute to the project (from 1 to 1.5 years). The project aims to understand how the information to which people are exposed (via their own behaviors, or AI systems that control what they see on social media platforms) affect their beliefs, preferences, and behaviors and, ultimately, collective patterns such as

opinion polarization.

Under the guidance of the PI, they will program and run interactive online experiments (using oTree or similar platforms), analyze experimental data, program computer simulations of learning models in dynamic environments, analyze archival data (e.g., Tweets by politicians) using cutting edge deep learning approaches (e.g., BERT).

Post-doctoral researchers are expected to contribute to the design and development of the papers, refining the hypotheses set forth in the project proposal and applying them to specific empirical settings, while also proposing different ways to approach the issues that could help move the project in directions the PI had not anticipated.

Successful candidates will work on tasks that fall in the following three categories. (Note: a given postdoc researcher tasks might not necessarily span all three categories, and could focus on just one or two of these):

1. Development and analysis of **learning models** (think of multi-armed bandit settings, reinforcement learning, category learning, exploration / exploitation, learning in games).
2. Design and execution of online and **laboratory experiments** (with a collective and interactive component such that participants will learn the decisions of prior participants before making their own decisions). Most likely in oTree or similar tools. For this experience with Python is a plus.
3. Analysis of large archival datasets of text documents, such as tweets by politicians, reviews and ratings from online websites, via **Deep Learning** (BERT models, using Tensorflow or Pytorch). For this, experience with Python is mandatory.

Successful applicants will join a team producing cutting edge research, regularly publishing their work in top international journals and conferences. Senior researchers from fields such as Psychology, Sociology, Management, Political Science, Economics and Artificial Intelligence are currently involved in parts of the project. These include Balázs Kovács (Yale School of Management), Michael Hannan (Stanford Graduate School of Business), Jerker Denrell (Warwick Business School), Yaakov Kareev (Hebrew University, Federmann Center of the Study of Rationality), Judith Avrahami (Hebrew University, Federmann Center of the Study of Rationality), Aina Gallego (Institut de Barcelona d'Estudis Internacionals), Fabrizio Germano (Universitat Pompeu Fabra, Department of Economics and Business), Vicenç Gómez (Universitat Pompeu Fabra, Artificial Intelligence and Machine Learning group), Elizaveta Konovalova (Max Planck Institute for Human Development – team alumni), Thomas Woiczky (Universitat de les Illes Balears, team alumni), Rahil Hosseini (UC3M, team alumni).

### **Project summary**

The polarization of attitudes across social groups is at the root of crucial challenges faced by our societies such as the rise of nationalism or populist ideologies. With his ERC Consolidator Grant, Prof. Gaël Le Mens studies the mechanisms leading to such attitude polarization.

The project combines insights from psychology, sociology, political science and economics to understand how the way we sample information from our environments shapes beliefs and attitudes. This project is timely, because social media are quickly transforming how people access information. AI-based recommendation algorithms are making it easier for people to be exposed to news sources that agree with their opinions. And they can easily avoid information that questions or goes against their views. Prof. Le Mens and his team try to explain how these patterns of information consumption facilitated by social media, AI, and recommendation systems, affect individual and collective attitudes. Their results will help understand phenomena that range from the impact of fake news to the persistence of negative stereotypes toward social groups that are different from our own.

### **Project output**

For examples of the kind of papers we aim to produce, see:

- Measuring the Typicality of Text Documents using a BERT Classifier (with Balázs Kovács, Michael Hannan, Guillem Pros Rius), working paper. <https://osf.io/ta273/>
- How politicians learn from citizens' feedback: The case of gender on Twitter (with Aina Gallego and Nicolas Schöll). Conditionally Accepted at *American Journal of Political Science*. Draft circulated under the title 'Politician-Citizen Interactions and Dynamic Representation: Evidence from Twitter'. Barcelona GSE Working paper 1238 [link].
- Evaluating Categories from Experience: The Simple Averaging Heuristic (with Thomas Woiczuk), *Journal of Personality and Social Psychology*, 2021, 121(4), 747–773. DOI: 10.1037/pspa0000231.
- An Information Sampling Explanation for the In-Group Heterogeneity Effect (with Elizaveta Konovalova), *Psychological Review*, 2020, 127(1), 47–73. DOI: 10.1037/rev0000160 [PDF]
- How endogenous crowd formation undermines the wisdom-of-the-crowd in online ratings (with Balázs Kovács, Judith Avrahami, & Yaakov Kareev), *Psychological Science*, 2018, 29(9), 1475-1490. Published online on July 25, 2018, DOI, [PDF].
- The few-get-richer: a surprising consequence of popularity-based rankings, (with Fabrizio Germano & Vicenç Gómez), *Proceedings of the 2019 World Wide Web Conference (WWW '19)*

**Video Presentation of the Project:** <https://youtu.be/LWQbdWsQwJA>

### **Appointment**

Approximately from mid September 2022 to April 2024. Contract duration, to be agreed with the Principal Investigator, may be from 1 to 1.5 year.

### **How to apply**

Applicants should fill in the application form and upload their application documents at <https://forms.gle/LS61d2yaryvMW4r68>

## Host institution and job location

Universitat Pompeu Fabra (UPF), Department of Economics and Business

Carrer Ramon Trias Fargas 25, 08005 Barcelona

More information about UPF: <https://www.upf.edu/web/universitat> and the Department of Economics and Business: <https://www.upf.edu/web/econ>

## More Information

### ADDITIONAL INFORMATION

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## Eligibility criteria

Only candidates meeting the requirements regarding qualification and skills will be considered for the position.

CV, two referees (position and contact details), copies of bachelor's or master's degree and PhD degree are also compulsory.

The chosen candidate will be appointed from starting approximately September 2022 for a duration of 1 to 1.5 years

EU citizens need a Spanish NIE number, Social Security number and a Spanish bank account.

Non-EU citizens have to have a valid work permit.

## Selection process

The application form should be filled in at <https://forms.gle/LS61d2yaryvMW4r68> at the earliest opportunity, but no later than 25th August 2022.

Starting date will be agreed with the candidate.

The evaluating committee will evaluate applications continuously until the position is filled therefore it is advised to apply as soon as possible.

The list of admitted and rejected candidates will be published at <https://www.upf.edu/web/econ/research-project-positions> shortly after the application deadline. Reasons for rejection will be stated and rejected candidates will have five working days for remedial

action.

If applicable, the date of the test and/or interview will also be announced.

The selection process will be completed with the publication of the chosen candidate.

Allegations can be submitted in the following five working days.

Since 2010 UPF is committed to the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (<https://euraxess.ec.europa.eu/jobs/charter-code-researchers>) adopted by the European Commission (EC). In 2014 UPF was awarded the HR Excellence in Research by the EC (<https://www.upf.edu/web/gestio-recerca/hrsr>).

## Additional comments

For any questions, please contact:

Mariona Novoa, [mariona.novoa@upf.edu](mailto:mariona.novoa@upf.edu), Universitat Pompeu Fabra, Departament of Economics and Business

### REQUIREMENTS

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#### Offer Requirements

##### **REQUIRED EDUCATION LEVEL**

Economics: PhD or equivalent

Psychological sciences: PhD or equivalent

Sociology: PhD or equivalent

Management sciences: PhD or equivalent

Political sciences: PhD or equivalent

Computer science: PhD or equivalent

##### **REQUIRED LANGUAGES**

ENGLISH: Excellent

## Skills/Qualifications

Knowledge of data processing and analysis.

Ability to program computer simulations.

Ability to program and run online experiments.

Ability to manage own work without supervision.

Ability to develop research hypotheses and research designs to test those (experiments, collection and analysis plan of historical data).

Language: Fluent English (written and oral)

### **Desired but not required specific skills**

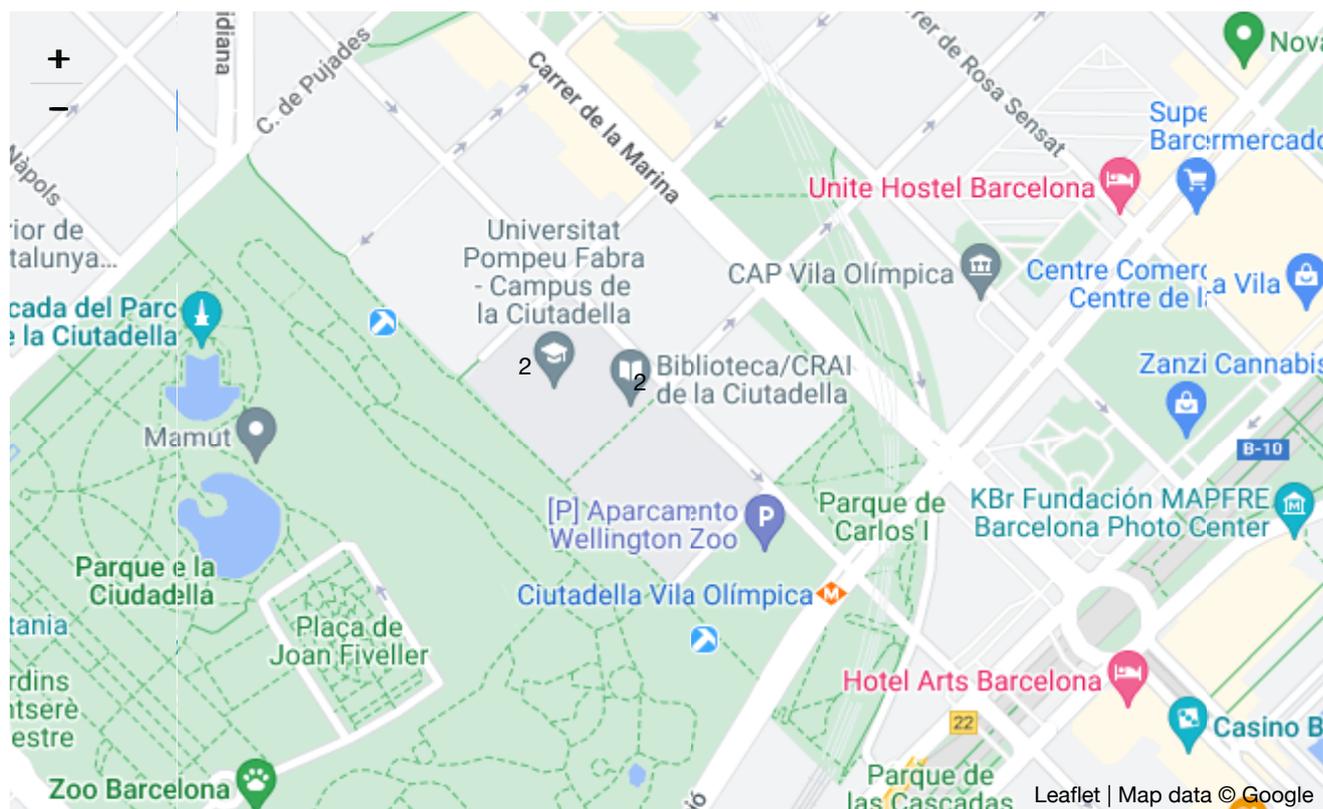
Experience with at least one of the following set of tasks:

1. Development and analysis of **learning models** (think of multi-armed bandit settings, reinforcement learning, category learning, exploration / exploitation, learning in games).
2. Design and execution of online and **laboratory experiments** (with a collective and interactive component such that participants will learn the decisions of prior participants before making their own decisions). Most likely in oTree or similar tools. For this experience with Python is a plus.
3. Analysis of large archival datasets of text documents, such as tweets by politicians, reviews and ratings from online websites, via **Deep Learning** (BERT models, using Tensorflow or Pytorch). For this, experience with Python is mandatory.

## **Specific Requirements**

Working knowledge of Python or equivalent (Matlab, Stata, R).

# Map Information



## WORK LOCATION(S)

2 position(s) available at  
 Pompeu Fabra University  
 Spain  
 Catalonia  
 Barcelona  
 08005  
 Ramon Trias Fargas, 25

EURAXESS offer ID: 820454

## Disclaimer:

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