Fulltime PhD-scholarship (100%)

On the subject of:

New Methods and Perspectives on Demographic Indicators

Research topic:

Big data currently is ubiquitous, in the sciences and elsewhere, and also accrues in various large-scale research facilities within the social sciences. The ability to handle big data well is a prerequisite for any real-world deployment of machine learning and intelligent systems.

At Interface Demography, we do have a huge body of scientific data (including population register and large scale surveys). These data have been analysed for assessing several demographic and societal challenges in domains such as inequality, population issues, health, mortality, fertility, labour market, discrimination and migration. In order to further the scientific work at Interface Demography, concepts and methods dealing with the exploitation of big data need to be further developed. This ambition constitutes an excellent starting point for scientific work within computational social science, a research thread with a strong potential of high-end scientific output. We now seek to fill a respective vacancy for a PhD student as soon as possible.

Job description:

- We expect you to prepare a doctoral dissertation (under the supervision of Tuba Bircan and Sylvie Gadeyne) in the fields of Sociology, in which you
- Work with several databases such as Belgian population register, large scale surveys (e.g., LFS, EU-SILC, EQLS, etc.) to map and estimate demographic indicators;
- Assess use of different Big Data sources such as social media data, internet-based data (in combination with traditional data sources) for modeling demographic challenges;
- Work on the challenges and opportunities of data harmonization;
- For your PhD you make use of machine learning algorithms and quantitative methods.
- You are expected to work closely on data management and support the ID staff with the IT related tasks (max. 25% of your time).

Job requirements:

- Master's degree in demography, sociology, political science, geography, statistics, data science, computer science/informatics or in a related discipline, e.g., mathematics, physics
- Successful candidates should demonstrate academic excellence and rigor as well as curiosity.
- Familiarity with database and/or Big Data technology.
- Have knowledge of, or a willingness to familiarise themselves with, current research into new and innovative data science techniques
- Great affinity with social and global demographic issues
- Excellent writing and analytical skills
- Proficiency in English is a must
- Good programming skills is appreciated.

We offer:

- A 4-year fulltime PhD-scholarship, renewable on a yearly basis
- Full reimbursement of (public transport) commuting expenses in Belgium.
- A dynamic and stimulating research environment.
- Suggested (but not fixed) starting date: 1 October 2021

Applying for this job

- Deadline for application: 10 August 2021
- Job interviews will take place online in the fourth week of August 2021 (23-27 August)
- Your application must at least include the following attachments:
    - A brief curriculum vitae
    - A concise statement of the reason for applying
    - A copy or the extended summary of your master thesis in English
    - A copy of your detailed study results (and if already available a copy of your master diploma)
    - Contact information of 2 referees
- Your application should be written in English
- Please email your application to Prof. Tuba Bircan (tuba.bircan@vub.be) and Prof. Sylvie Gadeyne (sylvie.gadeyne@vub.be).

For more information, please contact Tuba Bircan (tuba.bircan@vub.be) and Sylvie Gadeyne (sylvie.gadeyne@vub.be).