



Offer #2020-02795

PhD Position F/M Design and evaluation of new curiosity based- educational technologies for children.

Contract type : Fixed-term contract

Level of qualifications required : Graduate degree or equivalent

Fonction : PhD Position

Context

For schools in the 21st century, a major challenge is to meet the expectations of many students with different abilities and motivations for learning. Recently, research on active pedagogies has focused more and more on the role of curiosity in educational settings, which is seen as improving children's learning faculties by supporting their persistence in learning. Unfortunately, current educational and pedagogical contents encourage very little curiosity in children and very little questioning, i.e., the main expression of epistemic curiosity.

The main challenge of this thesis project is therefore to develop new educational technologies driven by epistemic curiosity, allowing children to express themselves more and to learn better through questioning in order to ultimately develop their inquiry skills.

This work is based on the collaboration between the Flowers project-team (INRIA), and EvidenceB, a young French start-up specialized in the development of innovative educational technologies.

The PhD project is based on several lines of research which are: 1) the study of effectiveness of curiosity-based pedagogical method in different learning areas, 2) the study of the role of learner's agentivity in the acquisition of skills, and 3) the study of the influence of beliefs and social perceptions of curiosity on the student learning performance and the teacher practices.

Overall, the research program aims to understand the role and impact of a pedagogy based on intrinsically motivated behaviour through new educational technologies.

As for any thesis work, missions are to be expected, including at least participation in an international conference each year to present the work done.

The future PhD student will mainly work at the Inria Centre of Bordeaux (Talence), but also at the offices of EvidenceB.

Travel expenses will be covered (within the limits of the scale in force).

Assignment

The PhD program will be supervised by H. Sauzéon and PY Oudeyer.

Main activities

Main activities : Develop new educational technologies, design experimental setup, perform experimental studies (data analysis and interpretation) and scientific valorization

Additional activities : Analyse the requirements of EvidenceB and present the work's progress to EvidenceB.

Skills

Technical skills and level required :

- Strong skills in human-computer interaction and human factors
- Advanced knowledge for statistics applied to human performance
- Strong Interests for experimental studies with humans

Languages : French and English

Relational skills : a strong motivation for relationships with children.

Benefits package

- Subsidized meals
- Partial reimbursement of public transport costs
- Possibility of teleworking (after 6 months of employment) and flexible organization of working hours
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)
- Social, cultural and sports events and activities
- Access to vocational training
- Social security coverage

Remuneration

Gross monthly salary (before taxes) :

- 1982 €/month during 1st & 2nd year of the employment contract
- 2085 €/month during the third year of the employment contract

General Information

- **Theme/Domain** : Robotics and Smart environments
Data production, processing, analysis (BAP D)
- **Town/city** : Talence
- **Inria Center** : [Centre Inria de l'université de Bordeaux](#)
- **Starting date** : 2020-11-01
- **Duration of contract** : 3 years
- **Deadline to apply** : 2020-12-31

Contacts

- **Inria Team** : [FLOWERS](#)
- **PhD Supervisor** :
Sauzéon Hélène / Helene.Sauzeon@inria.fr

About Inria

Inria is the French national research institute dedicated to digital science and technology. It employs 2,600 people. Its 200 agile project teams, generally run jointly with academic partners, include more than 3,500 scientists and engineers working to meet the challenges of digital technology, often at the interface with other disciplines. The Institute also employs numerous talents in over forty different professions. 900 research support staff contribute to the preparation and development of scientific and entrepreneurial projects that have a worldwide impact.

The keys to success

A background in cognitive science or in Human-computer interaction is expected.

Warning : you must enter your e-mail address in order to save your application to Inria. Applications must be submitted online on the Inria website. Processing of applications sent from other channels is not guaranteed.

Instruction to apply

The required documents are :

- CV
- cover letter
- transcripts of your 1st and 2nd Master year's (or equivalent diploma)
- recommendation letter(s) (if you have one)

Defence Security :

This position is likely to be situated in a restricted area (ZRR), as defined in Decree No. 2011-1425 relating to the protection of national scientific and technical potential (PPST). Authorisation to enter an area is granted by the director of the unit, following a favourable Ministerial decision, as defined in the decree of 3 July 2012 relating to the PPST. An unfavourable Ministerial decision in respect of a position situated in a ZRR would result in the cancellation of the appointment.

Recruitment Policy :

As part of its diversity policy, all Inria positions are accessible to people with disabilities.

