PhD position in Artificial Intelligence, Cognition, and Speech Sciences
Agent based modeling of the evolution of speech

The envisaged research of the PhD student
This PhD project is part of the ongoing research at the VUB AI-lab and part of the Flemish AI plan. It involves building computational models that investigate emergence of communication in populations of agents that are capable of realistic speech production and perception and that can learn systems of combinatorial speech – potentially with deep neural networks. The underlying research question is to understand the nature and origins of human language, and to disentangle which aspects of language depend on cognitive biases and which on the effects of cultural processes. It is therefore essential that results be compared with what is known about real human language. Ideally, agents should also be able to interact with and learn from humans.

Logistics
The PhD candidate will be based at the AI Lab at the VUB in Brussels, Belgium. They will be supervised by Prof. Bart de Boer, the promotor.

The PhD position
The PhD is full-time and fully funded for 4 years, under the condition that the student receives a positive evaluation on their yearly PhD progress report. The precise amount of the scholarship is calculated based on governmental guidelines that take your experience into account.
For precise details and benefits of the PhD scholarship, see:
https://www.vub.be/en/working-for-vrije-universiteit-brussel-vub/employment-conditions-and-benefits

Requirements
The successful applicant will have as much as possible of the following:
- Obtained or shortly expects to obtain an MSc or MA in AI, Computer Science, Speech Technology, Cognitive Science, Computational Linguistics, or a related discipline; Masters degrees should involve several months of experience on a scientific project.
- Good written and verbal English
- Good social and organizational skills
- A solid background in algorithms, computation, and/or machine learning
- Knowledge of speech science, phonetics and acoustics is a plus
- Experience with computer programming, preferably Python and C++

Application procedure
Please send the following documents in a single pdf file by e-mail to ABM.Speech@ai.vub.ac.be with subject 'Application: PhD position ABM Speech':
  i. A current CV, listing relevant experience and containing a list of your publications (if any).
  ii. Names, email addresses, contact numbers and a specification of the relation of two referees who would be willing to provide letters of recommendation.
  iii. An example of your writing related to obtaining your degree, for instance a bachelor thesis, master thesis or research paper; Documents created with (the help of) generative AI (ChatGPT etc.) are not acceptable.
  iv. A one-page letter of motivation and summary of research interests, written by the student; Documents created with (the help of) generative AI (ChatGPT etc.) are not acceptable.

For scientific enquiries, please send an email to ABM.Speech@ai.vub.ac.be with subject 'Scientific enquiry: PhD position ABM Speech'. Short-listed candidates will be invited to participate in an online interview. The job interview will be held in English or Dutch.

Please send all your application documents by **June 30, 2024**. Applications will be reviewed **from July 1st** onwards. The starting date is negotiable and should be in Autumn 2024.