Report on the outcomes of a Short-Term Scientific Mission[1]

Action number: CA19102

Grantee name: Olga TURCAN

Details of the STSM

Title: Developing a sociolinguistic approach to research issues on verbal human-machine interaction.

Start and end date: 4/07/2022 to 28/07/2022.

Description of the work carried out during the STSM

Description of the activities carried out during the STSM. Any deviations from the initial working plan shall also be described in this section.

(max. 500 words)

The purpose of my short-term scientific mission (STSM) as a Sociolinguist was to gain knowledge about Computational Linguistics through comprehending the main research issues and results, in particular on topics such as "Natural Language Understanding as an Interactive Process" and "Natural Human/Computer Interaction" and to question the transformative potential of emerging technologies in relation to beliefs about and understandings of language. The "Foundations of Computational Linguistics" Lab, headed by Prof. David Schlangen, at Potsdam University, Germany, offered me the great opportunity for achieving these goals.

During the visit, I firstly familiarised myself with the functioning of the laboratory, then I attended its activities according to the plan defined with Prof. Schlangen. The weekly Group Meetings of the Lab (on Tuesday morning) were an appropriate occasion to be introduced to the research work and agenda of the members of the group (Postdoctoral Researchers, PhD Students, research engineer). In its fourth, and last, working session, I had the chance to present, in general lines and through a reflexive approach, my activity during the STSM, but also to mention in more detail the LITHME (Language in the Human–Machine Era) COST Action.

The first week, I also attended a joint seminar with participants from other German universities (Bielefeld, Jena, Magdeburg) and a last talk for Summer semester 2022 within Potsdam Computational Linguistics Colloquium: Conversational Agent 'Perspectives' on the Human Interlocutor, presented by Hendrik Buschmeier, Bielefeld University, Germany.

[1] This report is submitted by the grantee to the Action MC for approval and for claiming payment of the awarded grant. The Grant Awarding Coordinator coordinates the evaluation of this report on behalf of the Action MC and instructs the GH for payment of the Grant.

As planned, for a direct approach to the field of Computational Linguistics, I attended prof. David Schlangen's class "Natural Language Understanding: What does it mean?" (3 sessions) and I had access to very interesting and stimulating documents and discussions. Moreover, comprehending the main research issues and results of the Lab was possible through reading a selection of articles published by its members, completed by other sources from Potsdam University Library.

Special attention was paid to the ongoing French-German AI project COCOBOTS - Natural Language Programming for Conversational Cobots (collaborative robots). The project brings together leading academic and industrial research institutions in Germany and France in the fields of natural language processing, robotics and computer vision. Understanding the goal of the project, its main challenges, the role of the researchers and other stakeholders was possible through attending the project meetings, examining the regulatory framework and conducting some interviews (three on German side and one on French side), in the second half of my visit. In this context, I had the possibility to explore, among other topics, the discourse on Artificial Intelligence, Human-Robot Interaction, ethics and the regulatory need in the field of using natural language processing technology.

The planned STSM activities were supplemented by informal discussions and networking opportunities with the research team members, facilitated to some extent by the end of the summer semester.

Description of the STSM main achievements and planned follow-up activities

Description and assessment of whether the STSM achieved its planned goals and expected outcomes, including specific contribution to Action objective and deliverables, or publications resulting from the STSM. Agreed plans for future follow-up collaborations shall also be described in this section.

(max. 500 words)

Since last October, I have been participating in the working sessions of two LITHME Working Groups (while remaining interested in talks presented by other groups): Language rights (WG 3) and Ideologies, beliefs, attitudes (WG 6). In this context, the collaborative work of the WG 6 on "Language Ideological Concepts in the Human-Machine Era", closely related to my research interests and expertise (language policy, multilingualism, critical discourse analysis…), encouraged me to obtain knowledge in another area, such as Computational Linguistics, and to bring my sociolinguistic research questions into the interaction with researchers from this (new for me) field.

The "Foundations of Computational Linguistics" Lab, at Potsdam University, Germany, offered me this great opportunity for an understanding of emerging technologies likely to influence language and for building bridges between computational linguists and other linguists, alongside developers and stakeholders (Deliv. 1.1-2, A.1-4 and Deliv. 1.3, O.4, O.9).

On the basis of readings and field observations in the framework of the current joint French-German AI project COCOBOTS, mentioned above, I developed interview questions and conducted four interviews. Thus, I obtained valuable answers (2 hours and 40 minutes of recording time, approx. 51 pages of transcript) that contain rich information, reflections and opinions about the project, but also on more complex topics or issues (usefulness of Natural Language Technologies - NLU, NLP, NLG - to overcome societal challenges; impact of digital technology on linguistic concepts and beliefs, discourse on AI, on Human-Robot Interaction and ethical norms in this field).

Within a future follow-up collaboration with Computational linguistics Lab, exploring this material in depth enables me to contribute, through findings and knowledge shared in a joint publication, to generating guidelines for an equitable development of emerging language technologies (Deliv. O.4).

Developing a future collaboration with the Lab and a research agenda can make a contribution to our better understanding of language ideologies, beliefs and attitudes and of societal consequences of our collaborative work, in the context of human-machine era (Deliv. 1.4, A.3-5, O.3, O.9).

In the framework of LITHME project, I invited the members of the Lab to participate in the ongoing online LITHME survey and its working groups talks/conferences; concrete steps will be discussed at the beginning of the next academic semester. In this context and beyond, keeping in touch with Prof. David Schlangen and his team will allow us to identify other ideas for future collaboration, given the support of the President of the University of Potsdam, Prof. Oliver Günther, who played a crucial role, with Prof. David Schlangen, in setting up this fruitful short-term scientific mission and for which I am very grateful.