

SHORT TERM SCIENTIFIC MISSION (STSM) – SCIENTIFIC REPORT

Action number: CA16105

STSM title: Investigation of Collective Intelligence of the end users in Gamified Crowdsourcing Language Learning platform

STSM start and end date: 15/09/2018 to 25/09/2018

Grantee name: Rina Zviel-Girshin

PURPOSE OF THE STSM

The purpose of this STSM was to investigate Collective Intelligence of the end users in Gamified Crowdsourcing Language Learning platform (as a part of a 3-level User Model: ID, EGO, SUPER-EGO proposed by Zviel-Girshin, Bedi & Rosenberg, "Enetcollect User Model for Intelligent Gamification Crowdsourcing Language Learning IS", ILAIS 2018 conference).

In current STSM we wanted to investigate the group or crowd generated data (crowdsourcing). We wanted to focus on Collective Intelligence (CI) of the end users and creating a SUPER-EGO part of the user model.

The second aim of this STSM was a deeper investigation of an issue of prosumers (the student being both producer and consumer of learning materials). How to encourage contribution to the platform, how to encourage participation on a scale required to produce high quality data, which expert search strategy to use, how to use games with a purpose (GWAP) to create learning materials.

DESCRIPTION OF WORK CARRIED OUT DURING THE STSMS

During the duration of the STSM 15-25 Sep 2018, the following work was carried out:

- Participation in "Designing collective intelligence - mobilising humans and machines to address social needs" conference organized by Nesta in London. The idea of this meeting is to bring together people working in crowdsourcing, AI, eHealth, politics, etc. Networking with people involved in the project and Nesta.
- Meeting with DALI team (Disagreements and Language Interpretation) at Queen Mary University at London (QMUL academic leader - Massimo Poesio). Current updates related to DALI project and "Phrase detective". A talk/presentation of enetCollect, WG1-5, Smart User Model and Linguistics Apps Development for Second Language Learning.
- Meetings at University of Essex with Jon Chamberlain and discussions of different aspects of crowdsourcing and collective intelligence in general and collective intelligence in language learning. Gamification of Crowdsourcing Language Learning from the point of view of prosumers (the student being both producer and consumer of learning materials).
- Participation in 17th Language and Computation Day at University of Essex. Presentation of "Linguistics Apps Development for Second Language Learning". Different talks about state of NLP, Phrase detective project and more.
- Additional talks about Gamified Crowdsourcing Language Learning platform with Doruk Kicikoglu (QMUL) expert in game design.

- Meeting and talk with Chris Madge (PhD student at QMUL) about Word Gems game for LL he designed. Possibility to use it to teach additional language (currently used to teach English).

Majority of work was carried out during meetings between the STSM grantee Rina Zviel-Girshin and the STSM host Jon Chamberlain. The meetings consisted of discussions, participation at conferences and science days.

DESCRIPTION OF THE MAIN RESULTS OBTAINED

Participation in “Designing Collective Intelligence (CI) - mobilising humans and machines to address social needs” event organized by Nesta in London gave us an idea about current state of the art in the field of Collective Intelligence, including existing applications, technologies, trends and tools. It seems that we are far ahead in our knowledge and understanding of the issues related to CI. This should be used for our advantage and promotion of the research in the field of CI in general and CI in LL in particular.

Additional result is an idea to use existing GWAP/LL games and tools in our platform. Currently several projects and games were approached by the grantee:

- Christos Rodosthenous at the Open University of Cyprus the STAR games (STory comprehension through ARgumentation),
- “Phrase Detective” designed by Jon Chamberlain at Essex and now part of DALI project,
- Chris Madge at Queen Mary University at London “Word Gems” game.

The designers of the games are willing to give us those games to use/add to our platform and allow us to make changes according to principles of CI and needs of the platform. Therefore, some of the results and ideas:

- an idea to develop a multi-language application sounds very interesting
- a possible cooperation in the future with game designers for LL.

One of the additional results of this STSM was in the area of prosumers. A deeper investigation of the issues related to the following topics: who is an intelligent prosumer? We discussed how to encourage users' contribution to the platform, how to encourage participation on a scale required to produce high quality data, how to use games with a purpose (GWAP) to create learning materials. Once again different game elements as a motivation tool were discussed.

Additional issue that was discussed – after creation of the platform to whom the collected materials/data will belong? Who has an Intellectual Property (IP) for it? What are we (platform designers) will be allowed to do with the collected data? If modified, to whom the data belongs?

In addition to the mentioned above results, the grantee will present the findings of this STSM at the next enetCollect action's meeting.

FUTURE COLLABORATIONS (if applicable)

Jon Chamberlain will give a talk about Collective Intelligence in WG3/WG5 meeting in Leiden. We can continue our discussion of Collective Intelligence for LL.

Additional suggestions for future collaboration is to take the “Word Gems” game designed by Chris Madge (PhD student at QMUL) for Basic understanding of English and to transfer it to different language. This suggestion has several aims: to understand amount of work it takes? How easy for software engineer (SE) to take an existing LL game in one language and to transfer it to another language (from SE point of view and from LL point of view)?



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