

SHORT TERM SCIENTIFIC MISSION (STSM) SCIENTIFIC REPORT

This report is submitted for approval by the STSM applicant to the STSM coordinator

Action number: CA16105

STSM title: Teacher training for enhancing ethical awareness in the crowdsourced environment

STSM start and end date: 31/03/2019 to 11/04/2019

Grantee name: Katerina Zdravkova

PURPOSE OF THE STSM:

The STSM will focus on the creation of a framework for permanent retraining of all the future teachers who are expected to be involved in the crowdsourced language learning and teaching. The proposed framework will involve all the learning strategies in the digital environments, and tend to reach the major learning goals, such as: the notion and the importance of crowdsourcing in modern education; the impact of new technology enhanced approach to effective education; and the objectivity of crowd-oriented evaluation. The sensitivity of personal data will be strongly emphasized at each step. To reach the goal, retraining strategies and GDPR should be thoroughly examined and incorporated into a meaningful whole. Retraining transactions should also be examined in details, to promote the powerful instructional principles, which include, but are not limited to meaningful, active and consistent content exposure, implementation of new learning aids in a pleasant environment, and stimulate open and active participation and collaboration that doesn't violate the ethical restrictions.

DESCRIPTION OF WORK CARRIED OUT DURING THE STSMS

My STSM is complementary to Elzbieta Gajek's STSM, so our stays started with the joint meeting with the host Branislav Bedi on 1st April. Dr Gajek and I exchanged the intentions of our stays, explained the preliminary work done prior to arriving to Reykjavik, and then we distributed the obligations. After each of these introductory stages, we have all actively discussed and critically assessed the intentions. Some elements were left for the future collaboration, taking into consideration the vastness of both STSMs. We have all concluded upon the obligations of both. Mine were the following:

1. Make an exhaustive research of the crowdsourcing projects in language learning (partially done prior to arriving to Reykjavik).
2. Research their compliance with the new EU regulations (General Data Protection Regulation, WIPO Marrakesh Treaty, Network and Information Security Directive and Digital Single Market) according to their privacy policies and terms of use (partially done prior to arriving to Reykjavik)
3. Determine the ethical challenges existing in the technology enhanced learning and crowdsourcing projects.
4. Differentiate the potential risks which might appear in enetCollect and classify them according to the ethical issues, such as: privacy, security, information access, freedom of speech and intellectual property.
5. Extract those challenges that might occur in the real-life crowd-oriented language learning projects, with a particular emphasis on the student and teacher privacy, data security and protection, freedom of expression, cyberbullying, appropriation of intellectual property and accessibility wizards.

6. Make an exploration of various projects intended for retraining of primary and secondary teachers worldwide, compare them, determine a set of assessment criteria and sort them accordingly
7. Make a research of the technology enhanced techniques implemented in these retraining courses
8. Select those retraining projects which contain explicit crowdsourcing elements, at least for the teachers
9. Extract the crowd-oriented techniques, which might be implemented in the enetCollect's prospective retraining courses
10. Explore the resistance of introducing crowdsourcing in the formal language learning, including the: lack of motivation, which is applicable to both, the teachers and the learners; the teachers' resistance to digital change (called, teachers' immunity)
11. Research carefully the nine elements of digital citizenship and explore how much are they used in the language learning
12. Research in details the digital citizenship norms for appropriate and responsible use of technology
13. Create a general framework of one crowd-oriented retraining course, no matter the topic
14. Create a crowd-oriented lecture intended to raise the awareness of the security breaches that might occur in education
15. Create the STSM scientific report

In order to evaluate the progress of both STSMs, we had four daily short stand-up meetings, where each of us was presenting the results from the previous activities, and until Friday, 5th April, three one-hour meetings, including the introductory one. During these meetings, Dr Gajek and I introduced the findings from the previous two days and made presentations of various training and retraining projects. Upon Dr Gajek's departure, I focused my work on the retraining lecture. It was presented to the host during our last meeting.

DESCRIPTION OF THE MAIN RESULTS OBTAINED

Although there are many crowdsourcing projects, and some of them are endorsed by UNESCO, such as the project "Education for All", still very few enable language learning. The very nice example of crowd-oriented language learning are the multilingual Duolingo (<https://www.duolingo.com/>), and French Zombilingo (<https://zombilingo.org/>). They were merged together with the most popular learning management systems (LMSs), and the massive open online courses (MOOCs), and then their compliance with the new EU regulations was examined. The results of this study were already presented during the annual enetCollect workshop in Lisbon, just 10 days before this short stay at University of Reykjavik.

Having the pool of many different crowd-oriented educational systems, it was rather easy to notice two major aspects:

- although intended to enable content creation by the crowds, most of them apply the traditional model – 'the sage on the stage'
- all of them contain more or less all the ethical challenges existing in the technology enhanced learning, starting from endangered privacy, through data security, and information access, up to the appropriation of the intellectual output of others, including plagiarism.

All the noticed risks from the previous point were carefully gathered in the following five clusters: privacy, security, information access, freedom of speech and intellectual property. The clusters indicating the presence of accessibility and freedom of speech issues remained almost empty. Namely, very few LMSs can be used for learners with reading impairment and print deficiencies, while none of the examined crowd-oriented systems promotes the freedom of expression.

Upon observing the ethical challenges in the real-life crowd-oriented language learning projects, it was concluded that some of them suffered from severe security breaches, particularly the most expensive, and those that don't frequently update their security policies. Although the social media based educational systems might cause cyberbullying and copyright infringement, no reliable evidence of this abuse was found.

After examining the ethical issues of the crowd-oriented educational system, an exhaustive search of the programs intended for retraining of primary and secondary teachers was done. Particularly influential are the Icelandic retraining project SEF for upper education, New Zealand's Hack Education, and the Croatian project GLAT for primary school teachers. After examining these programs in details, it was concluded that enetCollect's retraining program should be crowd-oriented, and that it should include:

- teachers' blog for exchanging the noticed ethical descent in education
- kernels for the lectures presenting the most frequent ethical challenges
- templates for the teachers who will create their own lectures for other teachers
- platform for submitting the created lectures
- reflection forum, where teachers evaluate the lectures of their colleagues

- reflection forum, where the experts evaluate the lectures of all the teachers
- After examining several techniques to minimize the resistance to digital change, it was concluded that:
- conversion of the retrained to retrainers
 - steady step-by-step approach
 - many frequent and short-term evaluations
 - definition of a target goal (the so called North Star)
 - non-technology dependent activities
 - very transparent approach
- might solve the problem. Concerning the motivation, various digital badges, awards for the best lecture, symbolic emblems and medals are intended. All of these techniques are compliant with the digital citizenship norms, although none is implemented in language learning.
- Using all these recommendations, the initial kernel lecture for academic dishonesty was created and presented to the STSM host and Dr. Gajek.

FUTURE COLLABORATIONS (if applicable)

The following points are the results of the mutual collaboration during these joint STSMs. They unite the perspectives of three working groups: WG1, WG3 and WG5. Both grantees Dr Gajek and Dr Zdravkova, and the host perceive the results of the projects as contribution to further stages of preparation of learner- and teacher-friendly materials to enhance the use of crowdsourcing as a means of language learning including strategy training in safe and ethically sound environments with a perspective of using them as a complementary material to enetCollect crowdsourcing application.

Future work will comprise the possibility to collaborate within WG1 to collect a set of exemplary activities that will include the elements of crowdsourcing in teaching practice. The idea is to create a place where practitioners – pioneers in crowdsourcing can share their experience on its use in language learning, bearing in mind that many ethical challenges should be taken into consideration. There is a need for joint effort to produce more guiding materials for the teachers interested in using crowdsourcing.

I have received the above report and I approve it



Branislav Bédi
University of Iceland