An Adaptive Trust-based e-assessment System for Learning

Reporting

Project Information

TeSLA

Grant agreement ID: 688520

Project website

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31 March 2019

Periodic Reporting for period 2 - TeSLA (An Adaptive Trust-based e-assessment System for Learning)

Reporting period: 2017-07-01 to 2019-03-31

Summary of the context and overall objectives of the project

The TeSLA project provides to educational institutions, an adaptive trust e-assessment system for assuring e-assessment processes in online and blended environments supporting all assessment models to improve the trust level across learners, teachers and educational institutions. It allows teachers to propose, monitor and assess any type of e-assessment activity being sure that the learners performing such assignments are who claim to be, and they are the legitimate authors of
those assignments. Furthermore, it helps teachers to prevent and detect different forms of academic dishonest behaviors, thus contributing to improve reliability in e-assessment. The TeSLA system allows to reduce the current restrictions of time and physical space in teaching and learning, especially regarding the assessment of learners, in a context where the mobility of learners and professionals is continuously increasing. It also opens up new opportunities for learners with physical or mental disabilities (SEND students), as well as respecting social and cultural differences. The system has been developed taking into account the requirements of quality assurance agencies in education, privacy and ethical issues, and educational and technological needs throughout Europe. Along the project, 22,941 learners (including 860 SEND students) and 457 teachers have tested the system in the 7 Higher Education institutions in real learning settings. It has been used in Moodle, Blackboard, yOUlearn, Koppa and the UOC virtual campus. It has contributed to stimulate research and innovation in the e-assessment field, thus reinforcing the principles of flexibility, mobility and accessibility that characterize e-learning.

Work performed from the beginning of the project to the end of the period covered by the report and main results achieved so far

WP1 has covered the overall management of the project, at the organisational and financial level. Thus, Partners’ coordination, Quality assurance and risk management, Project reporting and monitorisation of resources consumption and costs statements, Management and support of 2nd and 3rd pilots intersected by technical developments and enhancements, Management of plan to include third parties and Legal agreement for third parties. Managing also meetings and reports with the External Advisory Board (EAB) and the collection of the European Student Union (ESU) perceptions about TeSLA.

WP2. Conceptualisation of the e-assessment field. Main results: 1) development of an educational framework and a common e-assessment framework. 2) Guidelines and recommendations for accessibility design and adaptive approaches to deal with SEND students. 3) Specification of the educational functional requirements for the TeSLA system, and use cases. 4) webinars to train teachers. 5) Syllabus and guidelines for teachers.

WP3. Integration of data protection and ethical dimensions both at project level and TeSLA system. Main results: 1) provision of legal documents (like student’ consent form, ethical approvals and Data Processing Agreement. 2) Audit of the privacy filters put in place in the architecture of the TeSLA system. 3) National appliance of GDPR and update of a legal framework according to Article 29 Working Party. 4) Report of Legal and Ethical Advisory Group. 5) Guideline with Ethical Recommendations. 6) National appliance of GDPR and update of a legal framework according to Article 29 Working Party.

WP4. Conceptualisation of quality assurance in online HE and in the context of the TeSLA project. Main results: 1) definition of pilots’ quality indicators. 2) Documentation and evidence collection to external reviews of the pilots by the panels of external experts. 3) ameta-evaluation methodology of the e-assessment framework. 4) Quality e-assessment framework for European Quality Assurance
Agencies. 5) Training on e-assessment quality of 41 international experts.

WP5 and WP6. Specification of the instruments used, conceptualisation of the TeSLA system and its implementation. Main results: 1) specification of the TeSLA e-Assessment Portal together with the interfaces to the different sides with a special focus on the implementation of the instruments, and administrator tool. 2) Analysis of the partners’ learning environments, design of the architecture of the TeSLA system and definition of the TeSLA plug-in. 3) Implementation of the TeSLA system in an iterative strategy (Alpha, Beta and Release Candidate version of TeSLA system). 4) Teachers visualization of results (Audit Data). 5) Accessibility features deployed.

WP7. Design, scheduling and analysis of pilots execution. Main results: 1) Definition of the pilot coordination protocol and contingency plans. 2) Analysis of the pilots and Guidelines for teachers. 3) Tutorials to learners. 4) Development of learning scenarios based on actual successful practice of the pilot institutions. 5) Accessibility tests with participation of SEND students.

WP8. Development of a framework for pilot evaluation. Main results: 1) provision of the evaluation framework based on ointerviews with SEND students, focus group and pro-forma questionnaires addressed to students, teachers and other stakeholders involved in pilots. 2) Qualitative and Quantitative Analysis of collected data. 3) Design of questionnaire to third parties who tested TeSLA.

WP9. has supported the acceleration of external dissemination and exploitation activities. Several industry contacts have been solidified during this period, in addition to other European organisations interested in the possible applications of TeSLA. Dissemination and communication tasks as webinars, website updates, video, events attendance, papers, have been carried out.

Progress beyond the state of the art and expected potential impact (including the socio-economic impact and the wider societal implications of the project so far)

The ground-breaking nature of TeSLA system is based on integrating all technologies as a whole into the educational sector. These technologies were not yet fully applied on educational institutions. TeSLA is a system thought to online and traditional learning environments for e-assessment processes in any educational institution with an inclusive view to attend SEND students. It assures: a) authorship: provide evidence about the authorship of the assessment activities submitted by the students; b) non-repudiation: provide evidence so that the learner cannot deny that has submitted an assessment activity; c) authentication: provide evidence on the identity of the person who has submitted the assessment activity.

TeSLA project will reinforce European leadership in adaptive learning technologies presenting a safe and secure solution that will further enable e-learning to a wider audience. It will enable to conduct e-assessment activities more effectively and efficiently for a massive population of learners which will strengthen the competitiveness and growth of the EU e-learning institutions. From the technical point of view, it will facilitate the emergence of innovative businesses and create a digital learning ecosystem in Europe by linking relevant ICT stakeholders. Impacts across formal and informal education:
- Equal opportunities: TeSLA will increase opportunities for lifelong learning by distant online learning.
- Improved learner experience and flexibility: it more flexibility reducing mobility for face-to-face examinations.
- Educational models: TeSLA enhances existing educational models and bring education closer to people. Furthermore, earn the trust of accreditation bodies and governments on e-assessments will help organisations grow their online programs.
All type of disabilities were covered
specifically in case on pilot 3

SEND (students) infographics

1. Workflow
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