Call for Papers

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Special Issue on

“Technology Supported Assessment in Formal and Informal Learning”

Guest Editors

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Assessment can be considered as a systematic process of making judgments, and consequently reporting results, either about the effectiveness (with respect to achievement of intended learning outcomes) of learning and educational processes (ranging from formally established educational programs to informal learning experiences), or about individual students’ progress toward attainment of established educational objectives. Technology holds the potential to facilitate assessment implementation and maximize the benefits for all involved stakeholders. Cases of technology-enabled assessment are traced back to the use of the abacus and writing techniques for evaluating knowledge acquisition more than 2000 years ago. However, the use of technology alone, without being followed by the necessary paradigm shifts, cannot result to a significant effect in learning and teaching. The sometimes divergent evidence reported indicate the need for re-conceptualizing the ways in which technology should support both learning and assessment. Today, typically, learners and teachers use technology for accessing learning resources or submitting assigned homework, whereas technology has the potential to facilitate engagement in meaningful and authentic learning experiences and methods of keeping track of their levels of achievement. Technology is a vehicle that has the potential to help toward effectively meeting learning and assessment needs. However, this potential cannot be realized without taking account of the fact that learning and consequently assessment takes
place within the context (both social and technological) in which the learner acts. Appropriately designed methods and tools may facilitate monitoring of learning processes and, with the necessary technology-led and/or instructor-led feedback and scaffolds, learners are able to reflect and adjust their actions towards optimizing the outcomes of their efforts by performing even beyond their Zone of Proximal Development.

A widely adopted field of application of technology for assessment purposes is that of computer-based testing, with appropriately designed software tools being used for generating and administrating tests, as well as reporting results. Ease of test items development, reduced costs of administration to large numbers of examinees, increased levels of tests validity and reliability, and the capacity to communicate results in a variety of formats to a range of stakeholders constitute a number of reported advantages. Based on Item Response Theory, there is potential to generate tests of different difficulty levels, as well as adapt the difficulty level of assigned test items at the run time level depending on performance. Technology allows flexibility in time scheduling with learners being able to take tests anywhere and in any time. Thus, the act of assessment may not be constrained either by the physical boundaries of the traditional classroom or by the stiff school/university timetable. Additionally, there is potential for accommodating people with physical disabilities by providing appropriate input and output means.

However, testing constitutes only one of the available category of assessment methods, and its use for grading and learners' ranking only one of the many purposes of assessment. Despite the bespoken advantages of computer-based testing, technology can reveal its real potential when used for the execution of assessment activities that are seamlessly interwoven in either formal or informal learning processes; that is, when used for formative assessment rather than summative assessment purposes. By this way both learners and instructors may have access to performance data in-context that will help eliciting decisions about future learning directions. Simulations, digital games, virtual worlds, virtual labs, as well as the use of e-portfolios, constitute characteristic examples of technological facilitators of formative, in-situ, assessment. From this perspective, current trends in computer-based testing, technology-supported assessment in MOOCs, competence-based assessment methods and tools, and innovative approaches regarding generation and administration of new types of test items and constructs, as well as validation processes, need to be considered within the context of technology-supported assessment.

To this end, this special issue targets at efforts that may offer insights into current and future trends and research directions in technology-based assessment and testing. As a starting point, submitted contributions may reflect one of the following research track, yet work that may introduce other relevant research topics is also well invited:

- **Technological aspects of assessment and testing**: This track relates not only to new applications (regarding development of new assessment tools and methods or innovative uses of existing ones) but also to applications (with respect to both hardware and software) that are not generally used for assessment purposes. Special interest is
posed in ongoing projects relating to assessment based on the use of portable devices (such as smartphones and tablets) as well as other ubiquitous devices and services.

- **Technology as a facilitator of involved in assessment stakeholders:** This track may include projects regarding teachers’ training in using technology with the aim to effectively proceed to design and implementation of assessment, diagnoses and inferences about students’ learning, improvement of test scores’ reporting, as well as providing other forms of feedback. Submitted contributions may provide the basis for new theoretical approaches to (computer-based) test design, such as automated test design, and assessment of new constructs.

- **Implementation of large-scale formal and informal assessment projects with special international relevance and serious implications for learning:** Since impact is one of the most significant aspects of assessment, this direction is extremely significant to justify new technological developments and costs in terms of human and financial resources.

**Important dates**

Submissions of initial papers due: **15 March 2014**  
Decisions and Reflection on the initial papers selected: **1 June 2014**

Revised manuscripts due: **1 September 2014**

Feedback on revised manuscripts: **1 October 2014**

Final manuscripts due by the authors: **15 November 2014**

Final manuscripts sent to the publishers: **15 December 2014**

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**Special Issue Guest Editors**

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Submission guidelines

The manuscripts should be original, unpublished, and not being considered for publication elsewhere at the time of submission to Educational Technology & Society or during the review process. The manuscripts must be about 7000 words (including: title, author names, affiliations, abstract, keywords, main body, references, tables, figures, and appendices). Please follow carefully the author guidelines found at http://www.ifets.info/rev.php?pub=true while preparing your manuscript. To become familiar with the style of the journal, please see a previous issue at http://www.ifets.info/.

All manuscripts should be in MS Word format and submitted Please submit the paper to the EasyChair submission system for ETS-SI-TSA-2015 (ETS Special Issue on Technology Supported Assessment in Formal and Informal Learning) located at https://www.easychair.org/conferences/?conf=etssia15. All manuscripts will be subject to the usual high standards of peer review at the ETS Journal, through a double blind review.
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