## TOWARDS FORMATIVE E-ASSESSMENT IN PROJECT MANAGEMENT THROUGH PERSONALIZED AUTOMATED FEEDBACK

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Abstract: Formative e-assessment is a complex process, in which learners can build their knowledge, fill up their knowledge gaps or increase their learning abilities. The feedback mechanism is considered to be highly important for the formative dimension of e-assessment. Current paper proposes a model for automated feedback in a project management e-assessment environment: the model blends a built-in feedback sheet (a document containing the correct answers) with a recommender engine, which searches the web for references related to the incorrectly answered questions. The feedback model is personalized, because the web search is made taking into account the user profile: the list of concepts which weren't correctly understood. This list of concepts is mapped on project management domain ontology.

Keywords: e-assessment, project management, automated feedback, ontology, knowledge system

## Bibliography:

- 1. Assessment Reform Group (ARG). (2002). Assessment for learning: 10 principles. Cambridge, UK: University of Cambridge, School of Education.
- 2. Bennett, R. E. (n.d.). Reinventing assessment: Speculations on the future of large-scale educational testing. Retrieved October 02, 2010, from JISC: <a href="http://www.jisc.ac.uk/media/documents/programmes/elearningpedagogy/roadmapeassess">http://www.jisc.ac.uk/media/documents/programmes/elearningpedagogy/roadmapeassess</a> ment.doc
- 3. Biggam, J. (2010). Using Automated Assessment Feedback to Enhance the Quality of Student Learning in Universities: A Case Study. Technology Enhanced Learning. Quality of Teaching and Educational Reform (pp. 188-194). Athens: Springer.
- 4. Birenbaum, M., Kimron, H., Shilton, H., and Shahaf-Barzilay, R. (2009). Cycles of inquiry: Formative assessment in service of learning in classrooms and in school-based professional communities. Studies in Educational Evaluation, 35, 130–149.
- 5. Black, P., and Wiliam, D. (2009). Developing the theory of formative assessment. Assessment, Evaluation and Accountability, 21 (1), 5–31.
- 6. Bodea, C. N., and Badea, I.-R. (2009). Optimizing project time-cost-quality. Knowledge Management: Projects, Systems and Technologies, Proceedings of the 4th International Conference on Knowledge Management (pp. 155-163). Bucharest: UNAP.
- 7. Bodea, C.-N., and Dascalu, M. (2010). Competency-based E-assessment in Project Management and Firm Performance: a Case Study. Proceedings of the 4th conference on European computing conference (pp. 76-81). Bucharest: WSEAS.

- 8. Delcea, C., and Dascalu, M.-I. (2009). Knowledge Strategies Tools for Managing Enterprise Crisis. Knowledge Management: Projects, Systems and Technologies, Proceedings of the 4th International Conference on Knowledge Management (pp. 115-119). Bucharest: UNAP.
- 9. Frey, N., and Fisher, D. (2009). Using common formative assessments as a source of professional development in an urban American elementary school. Teaching and Teacher Education , 25, 674–680.
- 10. Göksedef, M., and Gündüz-Ögüdücü, S. (2010). Combination of Web page recommender systems. Expert Systems with Applications , 37, 2911–2922.
- 11. Hernandez del Olmo, F., and Gaudioso, E. (2008). Evaluation of recommender systems: A new approach. Expert Systems with Applications , 35, 790–804.
- 12. Hsu, I.-C. (2009). SXRS: An XLink-based Recommender System using Semantic Web technologies. Expert Systems with Applications , 36, 3795–3804.
- 13. Hsu, J.-L., Chou, H.-W., and Chang, H.-H. (2010). EduMiner: Using text mining for automatic formative assessment. Expert Systems with Applications .
- 14. IJntema, W., Goossen, F., Frasincar, F., and Hogenboom, F. (2010). Ontology-based news recommendation. Proceedings of the 2010 EDBT/ICDT Workshops. Lausanne, Switzerland: ACM.
- 15. OECD. (2005). Formative Assessment: Improving Learning in Secondary Classrooms. Retrieved October 2, 2010, from Organisation for Economic Co-operation and Development: www.oecd.org/dataoecd/19/31/35661078.pdf
- 16. Pachler, N., Daly, C., Mor, Y., and Mellar, H. (2010). Formative e-assessment: Practitioner cases. Computers and Education , 54, 715–721.
- 17. Sadler, D. (1989). Formative assessment and the design of instructional systems. Instructional Science, 18, 118–144.
- 18. Wang, T.-H. (2008). Web-based quiz-game-like formative assessment: Development and evaluation. Computers and Education , 51, 1247–1263.
- 19. Weng, S.-S., and Chang, H.-L. (2008). Using ontology network analysis for research document recommendation. Expert Systems with Applications , 34, 1857–1869.
- 20. Wieling, M., and Hofman, W. (2010). The impact of online video lecture recordings and automated feedback on student performance. Computers and Education , 2010, 992–998.
- 21. Yang, S.-Y. (2010). Developing an ontology-supported information integration and recommendation system for scholars. Expert Systems with Applications , 37, 7065–7079.
- 22. Zhen, L., Huang, G. Q., and Jiang, Z. (2010). An inner-enterprise knowledge recommender system. Expert Systems with Applications, 37, 1703–1712.