

Work package number:	WP6	Start month:	M7	End month:	M33
Work package title:	Machine learning and AI supported algorithms research in e-service IS related to learning styles (27.34 MM)				

Objectives

The goals are to track student activities and generating reports in order to support decision-making using machine learning techniques and artificial intelligence data based on multilayer perceptron methods. Examining how learners use a learning system and analysing learners' behaviour to help domain experts detect patterns and make decisions based on learning activity. By this means, improving the e-learning systems by individualizing learning and improving effectiveness with advanced data analysing methods and intelligent feedback systems.

Description of work

Task 1: Data mining for patterns of learner trajectories in collaboration with domain experts.

Task 2: Intelligent analysis through multi-layer perceptron method for creating flexible algorithms.

Task 3: Extensive analysis using algorithms and data interpretation concerning problems pertaining to e-learning.

Task 4: Extracting coherent causes of non-efficient learning trails and teaching activities and converting them into efficient approaches in the e-learning system

Task 5: Futuristic analysis to diagnose the dropout characteristics using congruent models of learning behaviour.

Task 6: Creating a poly-contextual learner profiles on multi-screen learning delivery platforms to trigger feedback for effective actions to deliver successful learning.

Deliverables

D6.1. Report on effective data processing methods for learning and teaching as well as reducing the dropout rates in e-learning system (M15)

D6.2. Report on application of cutting edge data analysis using machine learning and artificial intelligence techniques (M33).

D6.3. Scientific paper published in journals and conference proceedings which are indexed by Web of Science, SCOPUS or ERIH (A or B) databases (M18)