



i-TUTOR

www.intelligent-tutor.eu

Intelligent Tutoring for Lifelong Learning

A KA3 project

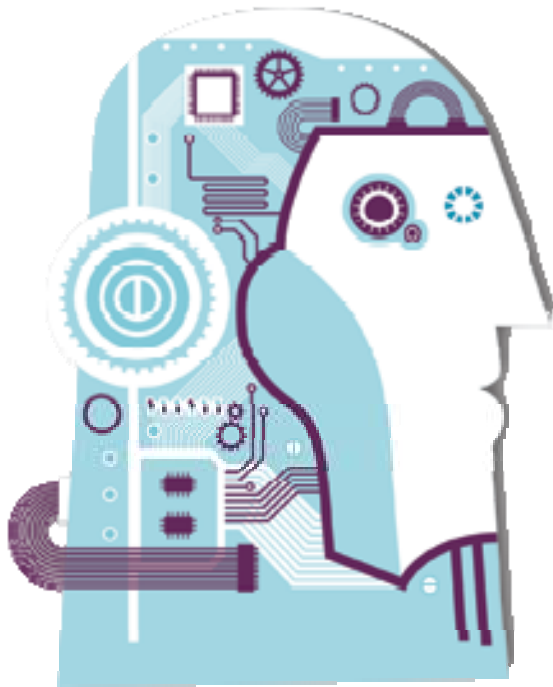


Lifelong
Learning



Why I-TUTOR?

Quality in online learning means to



- monitor, track and assess what the student does within the learning environment ;
- analyze students' writings;
- manage knowledge sources by, for instance, building representations of knowledge through conceptual maps or taxonomies;
- watch the network of formal and non-formal relationships as it develops within the class, fosters its strengthening and supports the inclusion of all individuals; and
- give formative evaluation and feedback.

The tutor overload!

To support and facilitate online learning, tutors spend many hours in collecting data from the learning environment ...



Technology can help!

ICT can further support online teachers, trainers and tutors, by means of a software based on automatic processes pursuing the goal of monitoring, tracking, assessing students, giving formative feedbacks and useful data to better individualize learning paths.

This is what the I-TUTOR plug-in does!

The process

Approaches

- Integration of pedagogical and computer science methods from at the design phase to get users involved from the beginning
- Artificial intelligence techniques to boost the capability of the learning system to support learning and teaching

Literature review and case studies development, understanding what has been done so far



Rapid prototyping approach, users are active part of the development process

Joint design and development, between pedagogical researchers and computer scientists

Integration with Moodle, the plug-in is available for the Moodle community



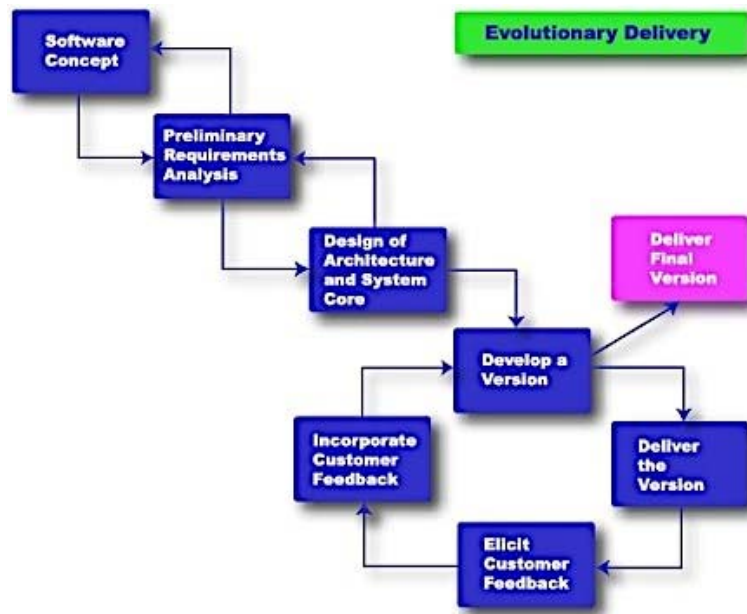
What is Artificial Intelligence?

Artificial Intelligence (AI) is a branch of computer science concerned with making computers behave like humans. The term was coined in 1956 by John McCarthy at the Massachusetts Institute of Technology.

With the original goal of AI to develop techniques which simulate human intelligence (i.e. reasoning process itself), its application in Education settings is to support interactions with the learner.

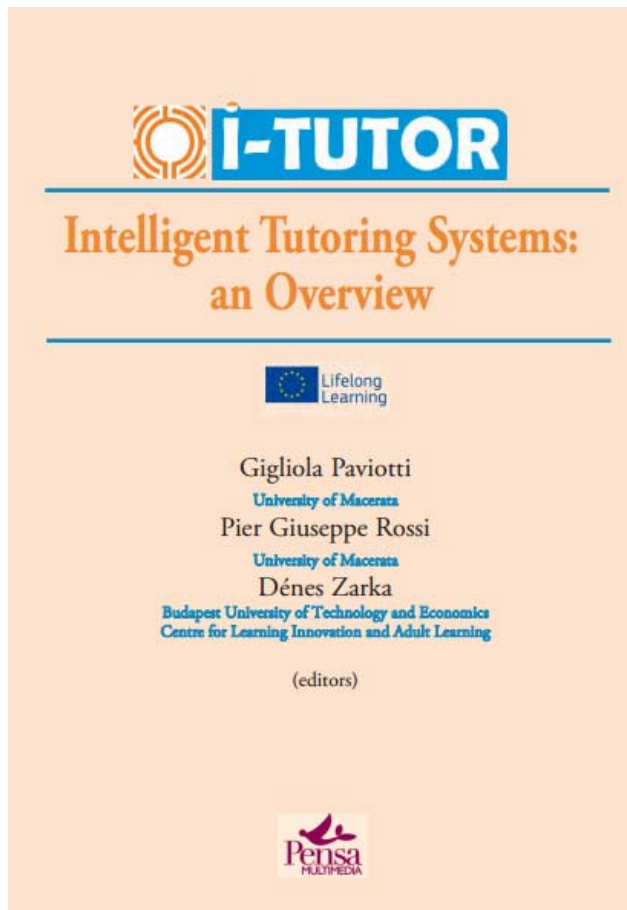
What is Rapid Prototyping?

Rapid Prototyping refers to the creation of models that are checked and evaluated by the users at each step of software development, and can be improved or discarded toward the final software release.



Users are active players in design and development process!

Would you like to learn more?



Intelligent Tutoring Systems: an Overview

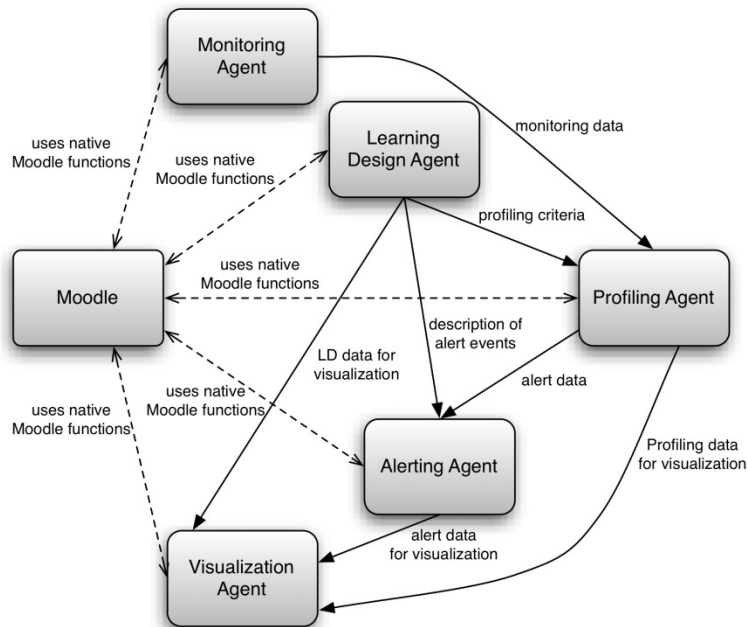
(2012) published by the I-TUTOR
consortium

The book presents the outcomes of a large literature review and the implications of using intelligent tutoring systems in the European scenario.

The e-book is available as a free download in PDF format.

The I-TUTOR plug-in

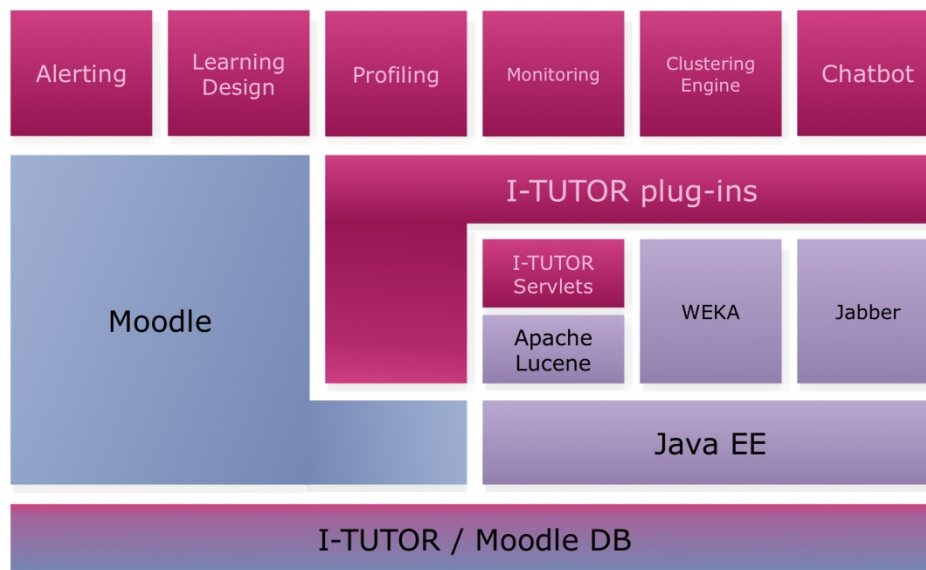
Developed on the basis of interlocked components



- ✓ Monitoring component
- ✓ Learning design component
- ✓ Profiling component
- ✓ Alerting component
- ✓ Visualisation component
- ✓ The survey chatbot (optional)

The I-TUTOR plug-in

The architecture



W3C standard web technologies

Java software modules

AIML technology (chatbot)

The software development process

Design ended in October 2012

Alpha testing March 2013

Pilot (beta testing) April-June 2013
the plug-in has been piloted in real settings
in three educational domains (higher
education, adult education, training)

Review July-September 2013

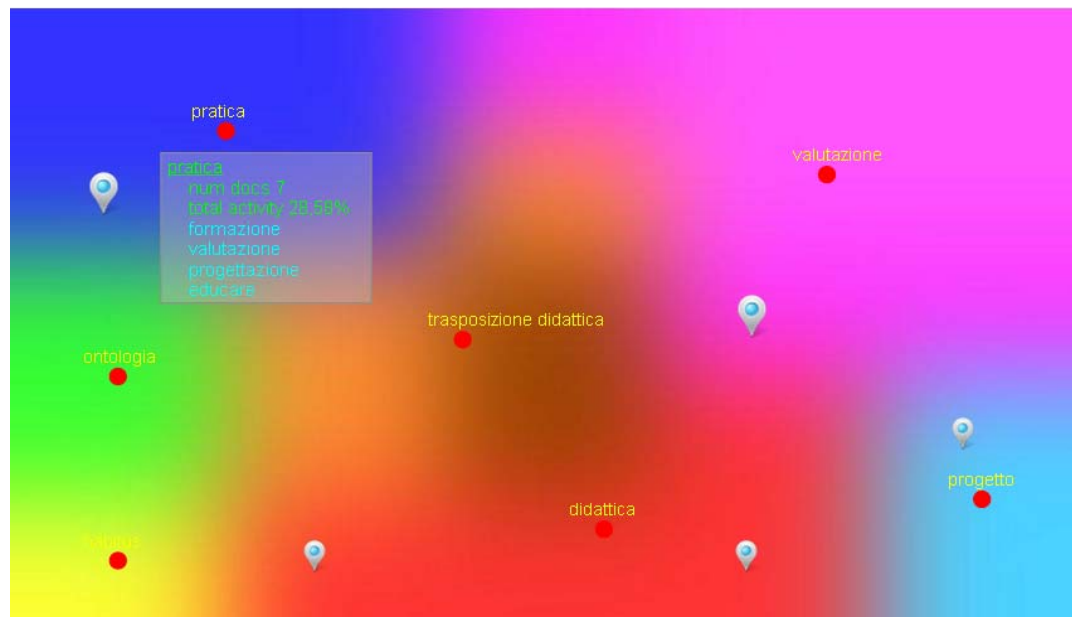
Released October 2013 for a
second piloting phase





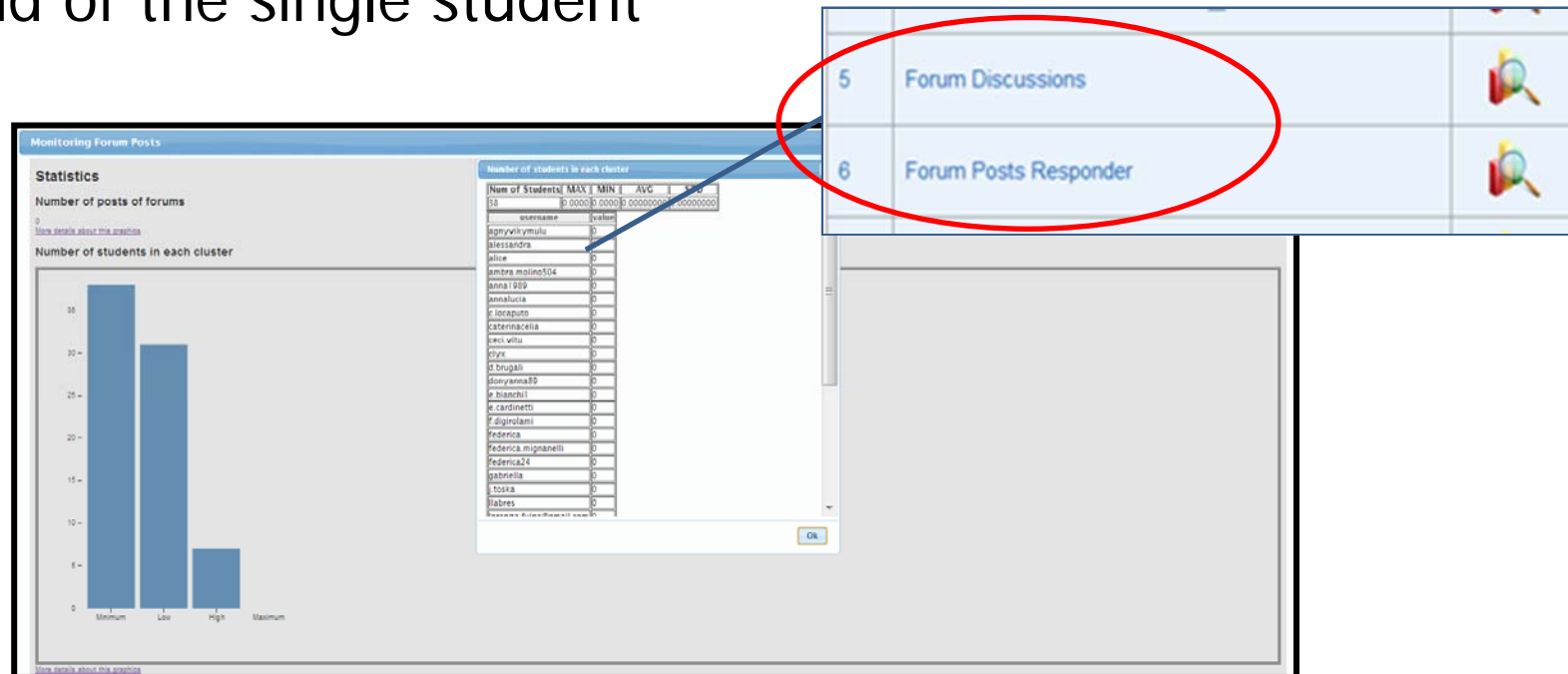
What the tutor can do? Maps

Create conceptual (domain of the course) and activity (students' activities within the course) maps



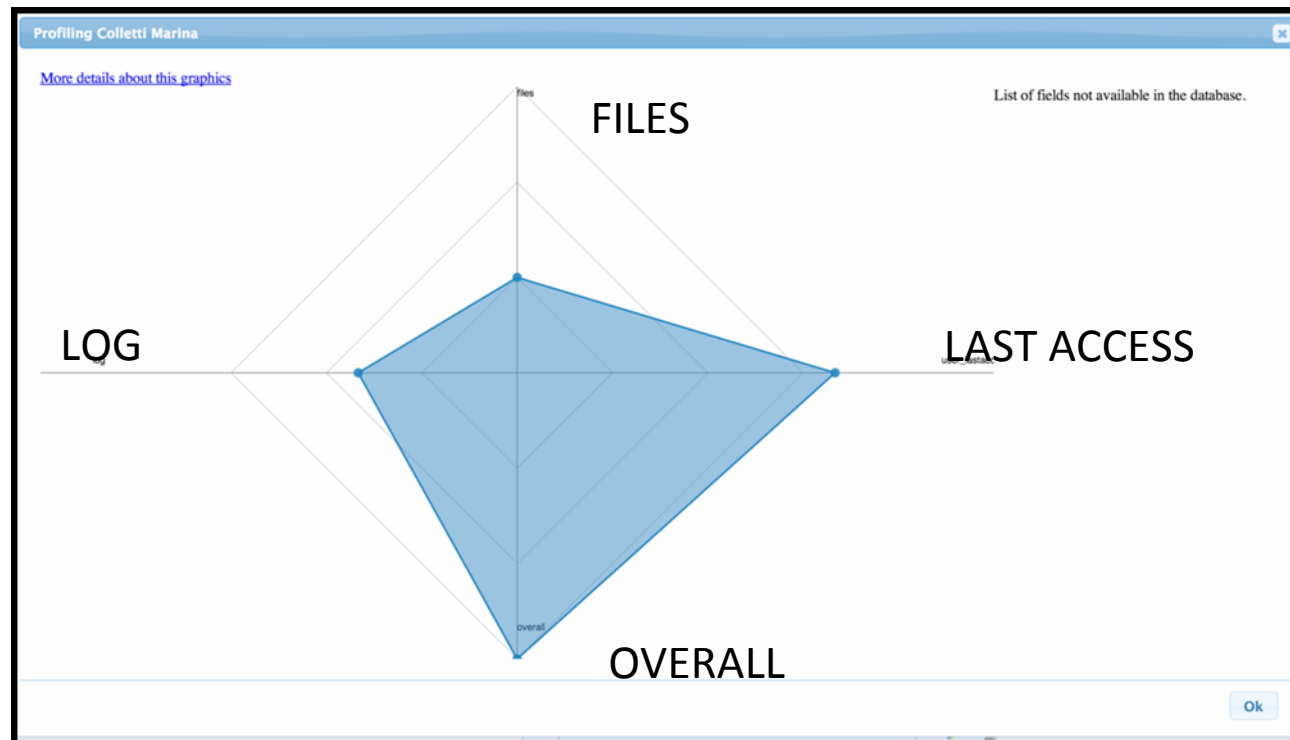
What the tutor can do? Statistics

Check behaviours and performances of the classroom and of the single student



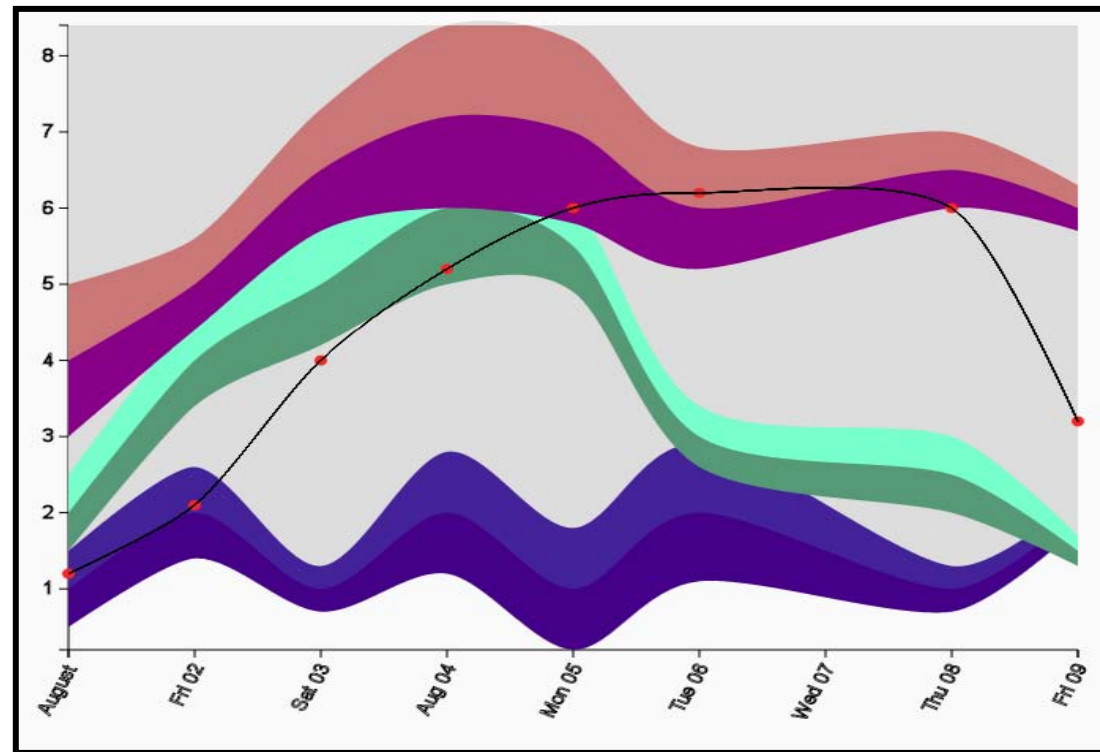
What the tutor can do? Profiling

Profile the student



What the tutor can do? Monitoring

Check the student's activities in a given time



What the tutor can do? Alerting

Create automatic alerts

Configuring a I-TUTOR Profiler block

Alerts?

Add Alert?

Alert day: 2 October 2013

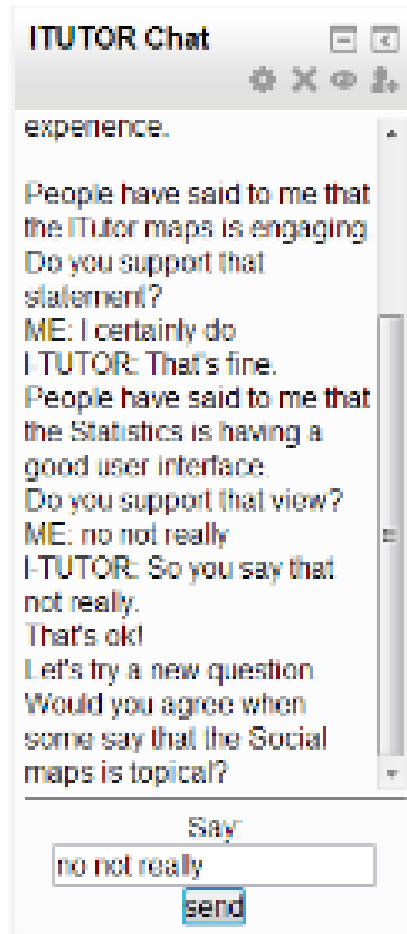
Alert type: NONE

Alert data (type of cluster to base alert on): All activities and marks(Overall)

Alert message:

Send to you (if unticked sent to student)

What the tutor can do? Surveying



Install the survey chatbot as additional tool

The chatbot deals with the students and asks if s/he has used the monitoring tools to promote self-regulated learning

What the student can do?

The I-TUTOR plug-in supports self-regulated learning.

The student can

Position him/herself in the course progresses and general classroom advancements

Check his/her performance within the learning environment

Receive alerts

Deal with the chatbot

Use conceptual maps

Use activity maps

Use Statistics for him/her profile

Receive inputs from the system

Be encouraged to use the tools to self-regulate his/her own learning



i-TUTOR

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The I-TUTOR plug-in is FREE!

Download it now!

The project website: www.intelligent-tutor.eu

The plug-in section in Moodle:

<https://moodle.org/plugins/>

The plug-in is available in English, Greek, Hungarian, and Italian.
The chatbot is available in English.



Lifelong
Learning



I-TUTOR offers also

- ❖ Tutorials in four languages;
- ❖ Learning materials for tutors;
- ❖ The possibility to develop the survey chatbot in additional languages (English available);
- ❖ A rich repository of resources on intelligent tutoring systems and artificial intelligence in education.



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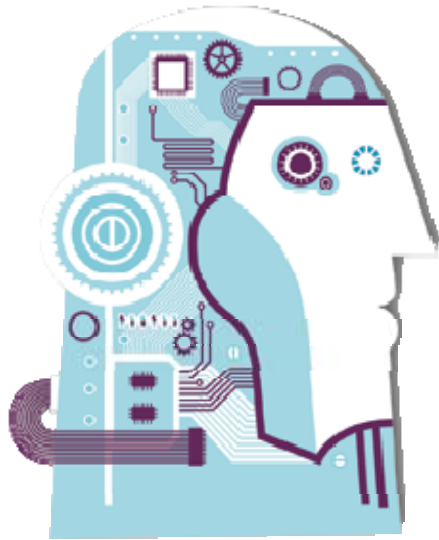
Why to use the I-TUTOR plug-in

Benefits

- ✓ for the teachers and tutors
- ✓ for the students
- ✓ for the organisations



The benefit of the tutor



- Have an improved monitoring performance;
- Detect at risk/underperforming students quickly;
- Manage easily the content of the course;
- Manage alerts automatically;
- Profile the student and the classroom for a more tailored support;
- Save time!



The benefit of the student

- Improved support from the tutors;
- Improved support from the system;
- The opportunity to check progresses, and positioning him/herself in the course advancements and with regard to the classroom;
- Inputs to reflect about his/her own learning.



The benefit of the organisation

- An improved support in online courses;
- Enhanced quality of the learning offer;
- Reduced costs.





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STAY TUNED!

Website: www.intelligent-tutor.eu

E-mail: contact@intelligent-tutor.eu

