Interoperability between the new open e-learning platforms: an intelligent answering machine

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  - MOSAICLearning: Mobile and electronic learning, of open code, based on standards, secure, contextual, personalized and collaborative.

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Background

- We are a distance university
  - Communication by e-mail, phone or e-learning platforms
- Our problem: Communication teachers/students
  - Student require too much attention
    - Usually the same questions!
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**Background**

- Information (knowledge) available in
  - Searchers
  - SCORM Courses, IMS-LD, ...
  - E-learning platforms
    - dotLRN
    - WebCT
    - Moodle

- Too many information sources!

**Objectives**

- Reduce the charge of work of the teachers
  - Answering the question of the students automatically

- Share contents and knowledge from one e-learning platform to another
  - Avoiding duplicated information

- Monitor the process, to know what to improve

**Characteristics**

- Student can use several communication methods to make the questions
  - E-mail
  - Some e-learning platform

- Our system will obtain the answers from the most suitable source:
  - E-learning platform
  - Information searcher
  - Database
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A Joke.... Question: what is 2 + 2?
- Engineer: "the answer is 4.000000000 E+0"
- Mathematician: "the answer is the summation as n goes from 0 to infinity of (3/4) raised to the nth power"
- Accountant: "what do you want it to be....?"

Answers depend on the knowledge source!

How to obtain suitable answers?
- Main points:
  1) Discover the suitable source
  2) The quality of the stored information
  3) How is recovered the information

The scenario
- Methods to send questions
- Information sources
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**The scenario**

Methods to send questions

- E-Mail
- .LRN
- SCORM Courses
- WebCT
- Moodle

Information sources

- Google
- .LRN
- WebCT
- Moodle

Intelligent Answering Machine

**Connections**

Methods to send questions

- E-Mail

Information sources

- Google
- .LRN
- WebCT
- Moodle

Answer Manager

Communication Middleware

Adaptation Middleware

**Using .LRN and Moodle**

1. Read messages
   - Access to the internal searcher
   - Search in the database

2. Obtain the question from the message

3. Decide the knowledge source

4. Recover Information:
   - From the database
   - From the searcher

5. Format the response
   - Access to the internal server
   - Write in the database

6. Write response

Diagram of Classes
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Configuration.- Parameters
- Name: Electronic II course
  - Inbox:
    - Type: pop3, dotLRN, moodle, webCT, ...
    - URL: dotLRN.uned.es
    - User/Password: user1 / ******
  - Information source
    - Type: google, dotLRN, scormCourse, ...
    - URL: moodle.uned.es
    - User/Password: user1 / ******
- Outbox:
  - Type: smtp, dotLRN, moodle, webCT, ...
  - URL: dotLRN.uned.es
  - User/Password: user1 / ******

Example.- Answering by e-mail
I would like to know the timetable of the Electronic II course.
Kind Regards.

Response and Feedback
Response to the question: I would like to know the timetable of the Electronic II course

Juan Peire Arroba is the teacher of the course Electronic II, the timetable is: Monday from 11:00 to 13:00. The contact phone is +34 91 398 64 89
Give a valuation
- Excellent
- Good
- Regular
- Poor
- Very Poor

Enter consulta
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Conclusions

- The development of projects related to these technologies:
  - Make possible interoperability between several e-learning platforms
  - Improve and optimise the student/teacher relationships
    - More efficient use of the knowledge available in the new e-learning platforms

Thank you for your attention!

Any Questions?

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