GaLan
Adaptive Learning Environments

Languages and Computer Systems Dpt. - UPV/EHU

http://galan.ehu.es
GaLan: http://galan.ehu.es

- Founded in the 90’s.
- Aim: “To apply artificial intelligence and information and communication technology to develop flexible and adaptive learning environments”
ITSs: Architecture
# Members

## Ph. D. (10)

<table>
<thead>
<tr>
<th>Name</th>
<th>Ph.D. Advisor</th>
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<tbody>
<tr>
<td>Isabel Fernández de Castro</td>
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<td>Alex García Alonso</td>
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<td>Begoña Losada</td>
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## Ph. D. Students (7)

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<tr>
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<tr>
<td>Maite Martín</td>
<td>Angel Conde</td>
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<td>Samara Ruiz</td>
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<td>Luis Antonio Chamba</td>
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<td>Zoiledny A. González</td>
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Location and cooperation

- Location

- Cooperation with other research groups and centers: research projects and internships
Research lines

- Teaching/learning environments
- User-centred Interface Engineering
- Knowledge acquisition
- Cognitive tools
Research lines

- SigMA
- CHEer.te-st
- Interaction Management
- INTZIRI
- OWLish
- MAGADI

- Teaching/learning environments
- User-centred Interface Engineering
- Architectures
- Knowledge acquisition
- Cognitive tools
Some results: B-Learning

- MAgAdI – an intelligent B-Learning environment
  - Multiagent
  - Multidomain and multicourse

- SigMA – a tool for feedback generation
  - Platform-independent
Some results: B-Learning

- CHEer.te-st – a tool for monitoring student-teacher interactions in F2F learning sessions
Research lines

- Virtual Reality
  - VIRTOOL-D
  - SigMA
- Interaction Management
  - CHEer.te-st
- Cognitive diagnosis
  - DETECTive
- Architectures
  - INTZIRI
- Knowledge acquisition
  - MAGADI
  - OWLish
- User-centred Interface Engineering
- Teaching/learning environments
- Cognitive tools
Some results: Cognitive Diagnosis

- DETECTIve - a generic diagnostic system for learning activities
  - On different domains
  - Several learning activities, procedural and conceptual exercises

- LEA – a tool for the automatic assessment of summaries
Research lines

- Teaching/learning environments
- User-centred Interface Engineering
- Knowledge acquisition
- Cognitive tools

Tools:
- MAGADI
- KADI
- LIDOM Builder
- DOM-Sortze
- IRIS
Some results: Knowledge Acquisition

- **DOM-Sortze**
  - Semi-automatic acquisition of Domain Modules for ILEs
  - Domain-independent
  - NLP, heuristic reasoning and ontologies
Some results: Knowledge Acquisition

- LiDOM Builder
  - Multilingual Domain Modules
  - Data mining & Machine Learning
  - Wikipedia
Research lines

- Teaching/learning environments
- User-centred Interface Engineering
- Knowledge acquisition
  - Cognitive tools
    - CM-Ed
    - Elkar-CM
Some results: Cognitive Tools

- CM-ED - General purpose CM tool
- Uses
  - Promote Learning
    - Technical and non-technical subjects
    - Multilingual technical terminology
  - Organise the material of a subject
  - Visualise student knowledge
    - Individual
    - Group
Some results: Cognitive Tools

- Elkar-CM
- Collaborative tool
- Token-passing

- Multiculturality
  - Questionnaire based cross-cultural study
  - Requirements for concept mapping editors
  - Built-in dictionaries, translators, spellers
  - Transformation rules, multimedia resources ...
Research lines

Teaching/learning environments

User-centred Interface Engineering

Knowledge acquisition

Cognitive tools

InterMod
Some results: User-centred Interface Engineering

- **INTERMOD**
  - Methodology for agile interactive software development
  - Aimed at:
    - Satisfying user needs
    - Formalizing software development process
Current trends

- Blended-learning
- Semi-automatic knowledge acquisition
- Multiculturality
- Agile methodologies
- Technology transfer to real scenarios
  - Educational data mining and learning analytics
  - Recommendation
GaLan
Entornos de aprendizaje adaptativos

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