What are trails?

- Trails (or tracks, or traces) that learners leave behind while navigating through learning environments, e.g.
  - a school-child navigating through course materials,
  - a learner navigating through the literature on a subject, or
  - a visitor navigating through a museum.
The TRAILS project

- Kaleidoscope Jointly Executed Research Project (JEIRP)
- January - December 2004
- Partners:
  - London Knowledge Lab - Birkbeck College
  - SCO-Kohnstamm Institute, University of Amsterdam
  - School of Computer Science, Queen's University Belfast
  - Cognitive Science Section, University of Graz
  - Institute of Educational Technology, The Open University, UK
  - e-Learning Unit of STREAM Technology Center, SchlumbergerSema Madrid
  - TeaM Lab, Informatics Methodology Group, Eotvos Lorand University, Budapest
  - Equipe ARCADE, Laboratoire CLIPS - IMAG, Grenoble

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AIMS

- To apply new technologies to the challenge of trail-support in e-Learning
- To investigate how different types of learning objects can be represented within an e-Learning system supporting trails
- To study an ontology for trails of learning objects with an e-Learning system, which is compatible with Semantic Web technologies
- To investigate personalisation and collaboration within an e-Learning system supporting trails
- To integrate presently scattered activity in Europe which is relevant to this challenge
Classification of trails

**UNITs OF TRAIL**
- learning outcomes
  - discussion
  - etc.
- materials & resources
  - etc.
- learning activities
  - analysis
  - reflection
  - etc.
- aims & objectives

**ACTIVITIES SUPPORTED**
- Assigning activities to specific learner roles
- Choosing from relevant learning activities
- Choosing learning materials and resources
- Locating activities
- Timing activities
- Goal setting

**ACTORS INVOLVED**
- learners
- teachers
- researchers
- managers
- developers

**TRAIL LEVEL**
- part of lesson
  - lesson
  - task
  - module
  - school type
  - etc.
- before
  - after
  - both

**RATIONALE FOR ORDERING ELEMENTS OF THE TRAIL**
- cognitive
- topic
- competence
- etc.
- temporal
- main objective
- level of planning
- authored
- emergent
- etc.
TRAILS' CYCLE OF LEARNING

NAVIGATION
- choosing from...
  set of learning activities or learning materials
  chosen from

PLANNING
- planning a new/ adapted...
  adaptation based on

LEARNING ACTIVITIES
- based on
  individual or collaborative trail of learning activities
  creating a..

ANALYSIS / REFLECTION
- trail of learning results
  assessing and reflecting on the...

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Trails - prospects

- Advise systems in ‘open’ forms of education, in which learners make choices from large amounts of materials
- Further development of techniques for matching resources to learners:
  - Automatic and manual classification of learning resources, based on topic and level; improvement of LSA techniques
  - Learner’s profile and level both filled in and automatically calculated
- Social recommendation
- Integration of Web 2.0 components based on trails into educational learning environments:
  - People performing this learning activity also.....
  - After finishing this module, most learners went on to...