Pilot Applications

In addition to the new methodology based on IA, the PARMENIDE project will develop two pilot applications (prototypes): the first one within the air transport domain and the second one within the railway transport domain. A target group of employees working in these transport sectors (airport and railway) will be invited to try out the prototype applications with the intent to evaluate the effectiveness of the methodology based on Intelligent Agents.

The target group will include:

- newly recruited staff who need to acquire specialist skills and on-the-job experience to perform at their best;
- existing employees who continuously need to upgrade their knowledge and competences;
- people working at a technical level who need to receive training appropriate to the duties assigned to them;
- personnel working in the transport sector who need to stay current on upgrades, changing procedures and technologies.

THE PRIME CONTRACTOR

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PARMENIDE Project

Università Telematica
Guglielmo Marconi

"PROMOTING ADVANCED RESOURCES AND METHODOLOGIES
FOR NEW TEACHING AND LEARNING SOLUTIONS IN DIGITAL EDUCATION"

Education and culture
Leonardo da Vinci

"PROMOTING ADVANCED RESOURCES AND METHODOLOGIES FOR NEW TEACHING AND LEARNING SOLUTIONS IN DIGITAL EDUCATION"

The PARMENIDE project, co-funded by the Leonardo da Vinci programme, intends to design and disseminate an innovative learning system for the purpose of drawing together e-learning modalities with an advanced and interactive knowledge acquisition system based on Intelligent Agents (IA). The project aims at meeting the needs, in terms of training and skills, perceived in the field of transports, qualifying and updating staff competences.

Objectives

The purpose of the PARMENIDE project is to propose a methodology that combines a distance-learning environment with an educational system based on Intelligent Agents enabling individual learning and the provision of guidance and assistance to trainees.

The new PARMENIDE methodology aims at bridging the gap between the theoretical and the practical approach to training process and at fostering the importance of pedagogical agents in on-the job computer-based training environments. In order to demonstrate the potential and effectiveness of the new methodology based on IA, PARMENIDE also aims at developing and experimenting two pilot applications for the training of transport sector workers.

In such applications the Virtual pedagogical characters shall use Artificial Intelligence methods:

▶ to show students how to carry out a complex task and to enhance a pragmatic approach to solve problems;

▶ to evaluate the performances and responses of each trainee and adapt the teaching method according to specific needs and particular environments.

The interaction between the learner and the agent takes the form of a pedagogical interaction, where the intelligent agent can monitor and evaluate the learning process, providing both feedback and assistance. Acting like virtual pedagogical characters, Intelligent Agents are beneficial for learning as they strengthen the social dimension of electronic learning environments and enhance the active experiential participation of the learner.

Beneficiaries

The beneficiaries of the PARMENIDE project will include the following:

1° Level Beneficiaries: the research and academic community – in particular academic institutions, research centres, scientific institutions, educational networks – involved in planning and developing pedagogical models and methodologies for e-Learning supported by IA technology.
The aim is to convey the potential and feasibility of the proposed methodology and build awareness on the importance of the definition, planning strategies and training paths (based on the IA technology applied to education);

2° Level Beneficiaries: firms and businesses interested in monitoring didactic experimentation and educational processes and committed to the promotion of quality training and implementation of training programs through new technologies. Employee training on technical topics is critical to successful growth of businesses operating not only in the transport sector but in other sectors as well. Therefore PARMENIDE's didactical methodology may enable cost effective training solutions simultaneously with the increased knowledge and expertise within the organization;

3° Level Beneficiaries: technical staff and employees operating within the transport sector. The training paths that will be identified in the project will assist staff and employees to enhance their technical skills and meet the continuing educational requirements of their professions. By providing hands-on training, they will be able to understand the consequences of their mistakes and acquire the capacity to operate and maintain complex equipment, systems and devices used in the transport sector.