

AboutColdex



Coldex supports distributed collaborative settings

Coldex aims at developing and using new IT approaches and computational tools to foster scientific experimentation, modelling and simulation in distributed collaborative settings in an inter-cultural (European-Latin American) community of learners. Our efforts will result in the creation of innovative pedagogical scenarios. A common denominator for the learning domain is the study of visual and other perceptual phenomena, including astronomical and seismic measurements, from both a scientific and a subjective experiential perspective.

The project will start with local learning communities sharing a rich everyday context. The target groups will range from higher secondary education to academic beginners.

CollideResearchGroup

Ulrich Hoppe
Marc Jansen
Niels Pinkwart

Universität Duisburg-Essen
Lotharstr. 65
47057 Duisburg, Germany
coldex@coldex.info



Coldex - Collaborative Learning and Distributed Experimentation

Eu-Project 2001-32327
www.coldex.info

Coldex – Collaborative Learning and Distributed Experimentation



high quality telescope
and rocket

The scientific and engineering approaches used to discover and explore these phenomena will consider the following aspects:

A small number of "remote sites" (mainly in Chile) will generate data. Among these will be an observatory with a high quality telescope and a seismic measurement station in Chile.

The "construction of realities" includes the setting of (real) experiments, the provision of 3D virtual scenarios, artefacts that support other types of perceptual experience.

Concrete modelling & design includes 3D models with sound and tactile I/O as well as physical models with IT components (e.g. Lego Mindstorms).

"Abstract and conceptual modelling" using formulae, diagrams as well as informal sketches will be supported through a combination of visual concept mapping tools.

Synchronous collaboration tools (including face-to-face group work) will contribute to forming a "group memory" which is also accessible in asynchronous mode.

Local learning communities will exchange their ideas, results and problems in an international network, established by an "Open User Scheme". A speciality of COLDEX lies in its origination from a European-Latin American co-operation incentive (EuroLat-IS).

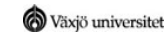
Examples of the phenomena to be studied are:

- Astronomy
- Seismic phenomena
- (inter-)acting and navigation with limited perception in everyday scenarios
- Reactions of plants, animals and humans to environmental conditions
- Optical phenomena in mechanical engineering and chemistry



partners:

[Universidad de Chile](#)



[University of Växjö](#)

Center for Learning and Knowledge Technologies (CeLeKT)

[Universität des Saarlandes](#)

Visualization research group



[Fundación Universidad Empresa](#)

LTCS Group of the Spanish Open University (UNED)

[Universidad Politécnica de Madrid](#)



[Instituto de Engenharia de Sistemas e Computadores - Investigação e Desenvolvimento, Lisboa.](#)

[Universita Catolica del Norte](#)

CollideResearchGroup

Ulrich Hoppe
Marc Jansen
Niels Pinkwart

Universität Duisburg-Essen
Lotharstr. 65
47057 Duisburg, Germany
coldex@coldex.info