



University of Udine  
Physics Department  
Interdepartmental  
Centre for  
Research in Education  
CIRD

**MPTL**

Multimedia in Physics Teaching and Learning

UDINE (Italy)

September 23 - 25, 2009



European Physical  
Society  
Physics Education  
Division

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# INTERACTIVITY IN A REMOTE LABORATORY

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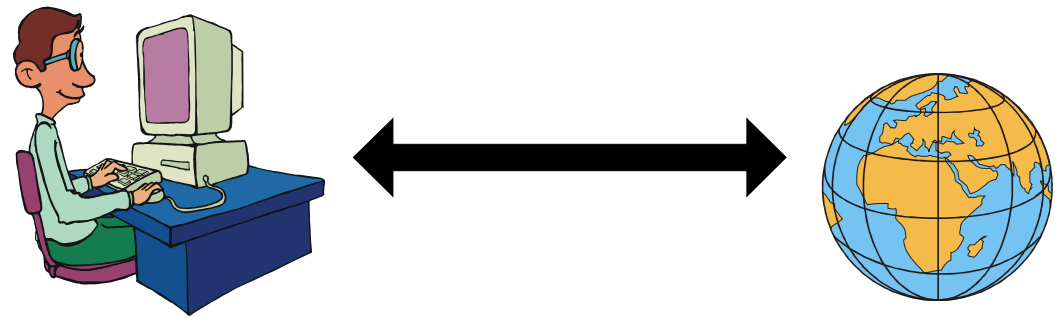
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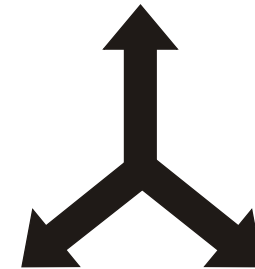
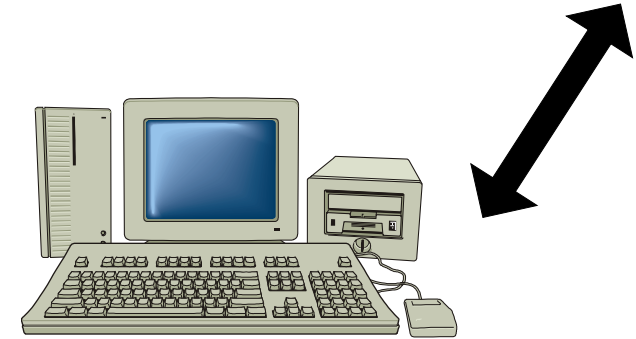
# REMOTE LABORATORY

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Remote Laboratory is a project developed by **CoLos** group at the University of Murcia (Spain) such a present partner of Hands-On Science (**Hsci**, 2003)

Remote Laboratory is **available in** English in <http://colos.inf.um.es/rlab/>



# .... IN A REMOTE LABORATORY you will find...

**Application** has been elaborated turns on the obtaining of characteristics of an electrical device

**Scheme of experiments** is available

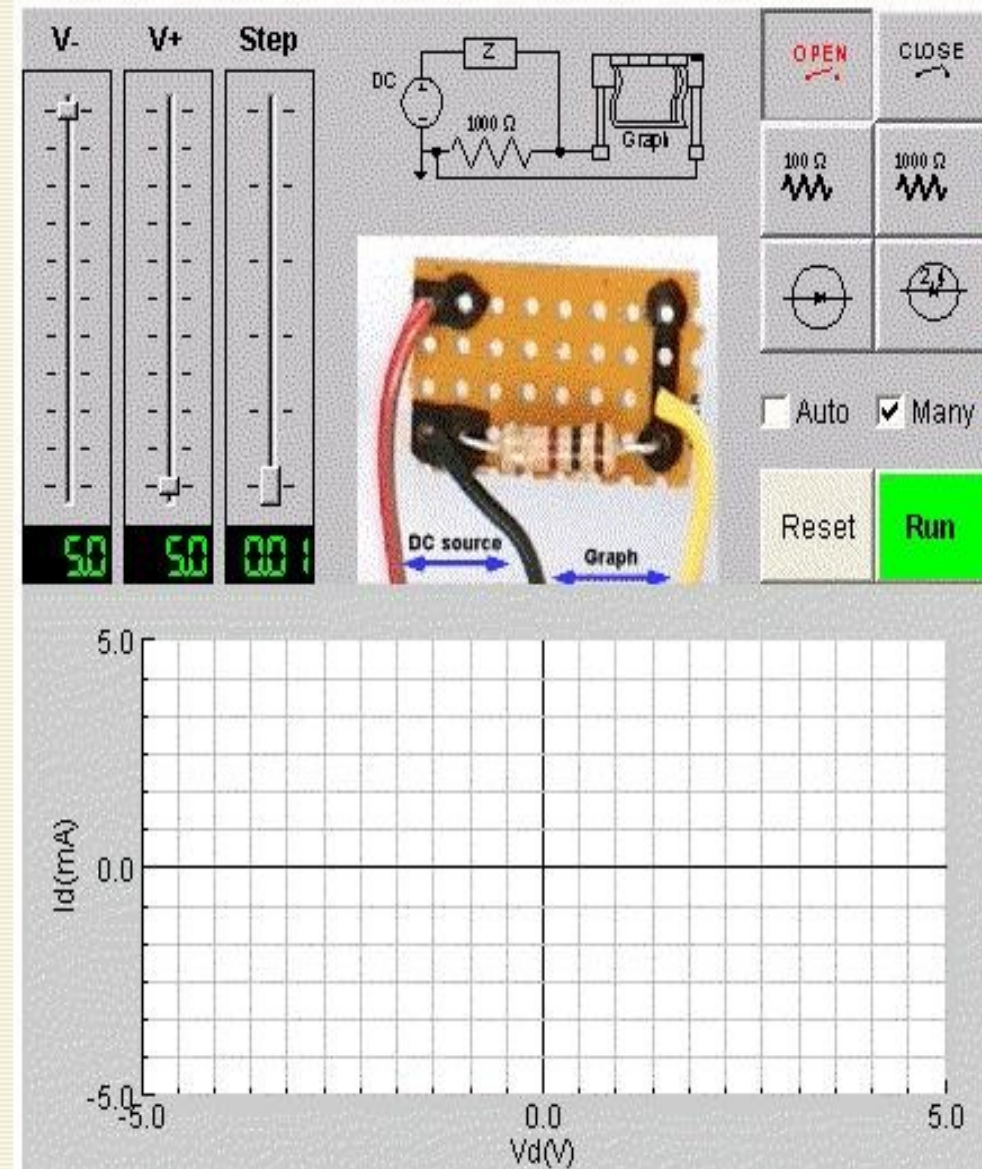
**Tutorial** to review main concepts about:

1) circuit elements 2) charge/discharge characteristics of a capacitor

**Applets** to:

1) control the experiments  
2) with the possibility to get more information about them

The Applet V/I Experiments

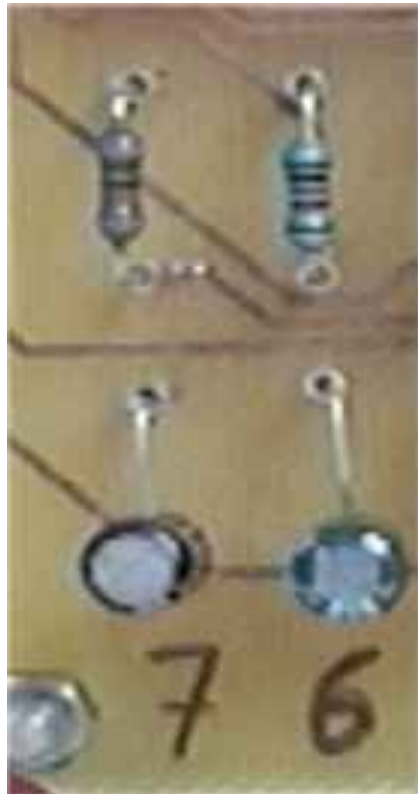


Remote Lab Experiments

# .... IN A REMOTE LABORATORY

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## INTERACTIVITY



# .... IN A REMOTE LABORATORY

WHERE WE ARE? WHAT HAPPEN THERE?

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## CONNECTED INTELLIGENCE

◀ **INTERACTIVITY**: Special answers to special questions from special students

◀ **HIPERTEXTUALITY**: Links of information

◀ **WEBNESS**: connecting ideas

De Kerckhove, D. (1995)



**COGNITIVE INTERACTIVITY**

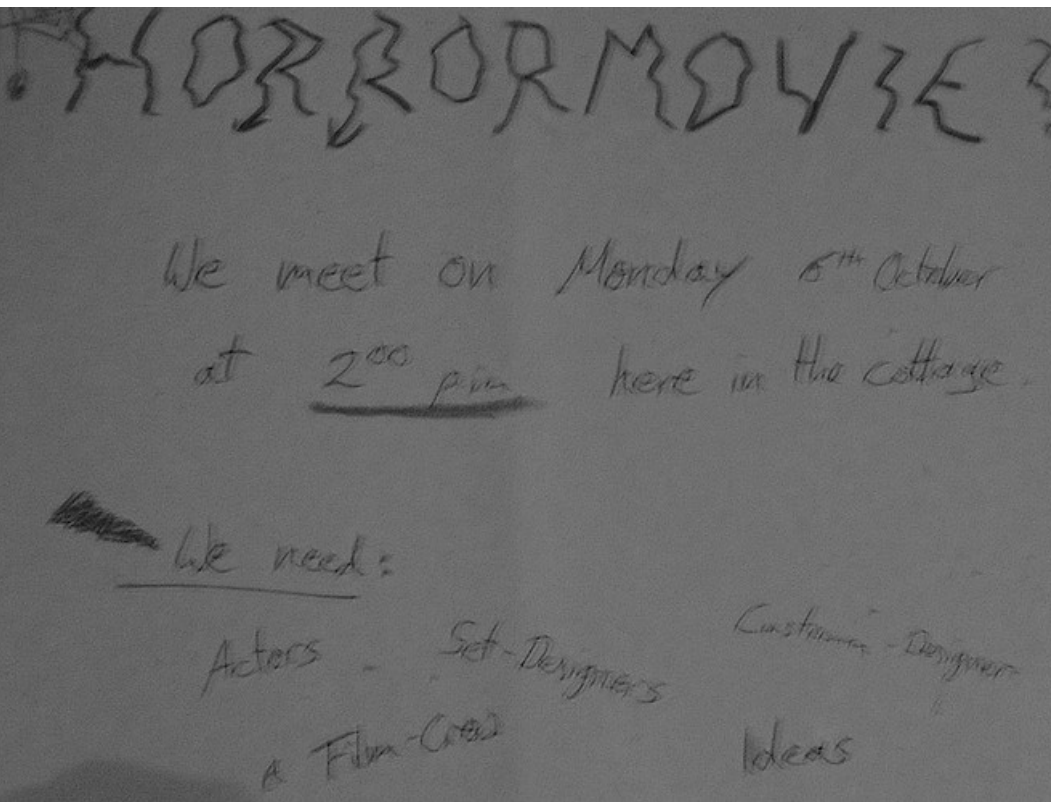
Prenes (1995, 2004)



# COGNITIVE INTERACTIVITY:

A) Consider EASY questions for an  
EASY teaching-learning process

## CULTURAL CONSIDERATIONS



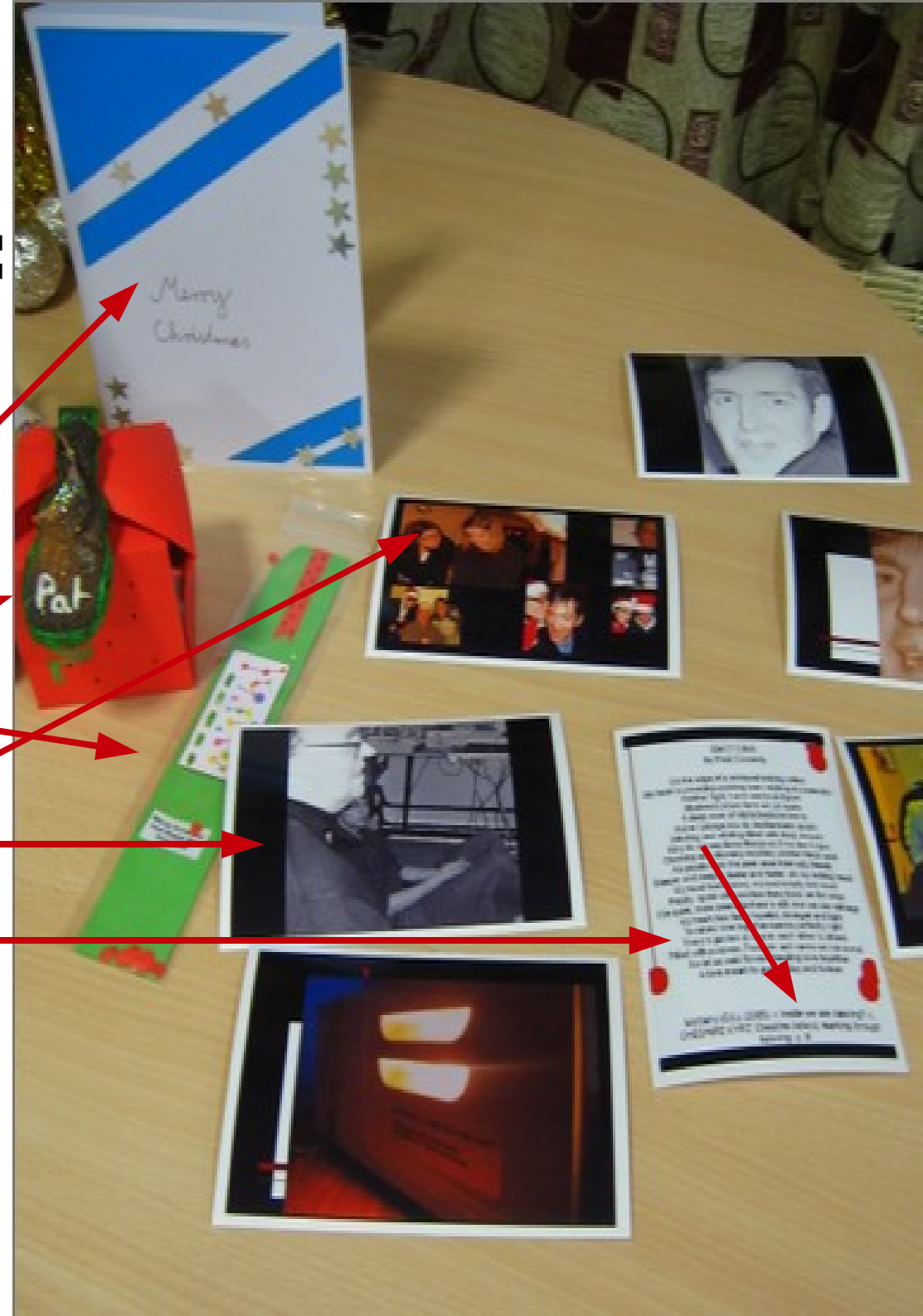
# COGNITIVE INTERACTIVITY:

B) Don't forget COMMOM  
**Media**

With thinks hand made,  
handing on

Making photos, printing them

Representing the work of  
everybody to everybody





# COGNITIVE INTERACTIVITY:

C) Create a sense of **NETWORK**, in the same space

The image shows a screenshot of a Picasa web album gallery titled "Galería pública de Lucía Álbumes (100)". The interface includes a search bar, navigation tabs for "Explorar" and "Galería de Lucía", and sorting options: "Ordenar por: Fecha del álbum | Fecha de subida". A "Compartir" button is visible on the left. The main content area displays a grid of photo thumbnails with their respective captions, dates, and photo counts. Red circles and lines are drawn around several elements to highlight them:

- Belgium:** A red line underlines the label "Belgium" on the left, pointing to a photo of a person in a wheelchair.
- Germany:** A red line underlines the label "Germany" on the left, pointing to a photo of a sign that reads "Sìol Eàlìagh SHILLELAGH".
- Ireland:** A red line underlines the label "Ireland" on the bottom right, pointing to a photo of a person's arm with a tattoo.
- France:** A red circle highlights a comment in the right sidebar: "J'ai vu la même à Melb... désormais."
- Spain:** A red circle highlights another comment in the right sidebar: "Yo creo que es un niño realmente precioso ¿a Lucía".
- Chile:** A red circle highlights a location pin on a map in the right sidebar, labeled "Chile".

Other photos in the grid include "Rock Ardeen 2005", "Irish Breakfast - MEN", "In Ardeen by Meli", "Shillelagh by Julia", "In Ardeen by Julia", "Lovely German Volunteers", and "Cooking, thank you Ardeen !!".



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