

DEPARTAMENTO DE INFORMÁTICA

Video Interaction using Pen-based Technology

MULTIMODAL SYSTEMS / IMG Team



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Objectives

Video is a complex media and its interaction is not easy.

Improve video interaction using a familiar input interface: pen-based technology.

Pen-based technology is usually associated with static media: how to apply it to video interaction, a time-based media?

Methodology

Pen-based technology can be used indirectly, through digital ink, or directly, through pen gestures and pressure.

Digital ink for video annotations (video augmentation) and pen gestures and pressure as input commands for video editing (video manipulation):

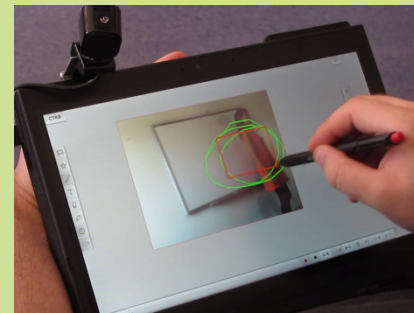
- Pen-based video annotations: real-time annotations with motion tracking
- Pen-based video editing: inking using video content (2D timeline works like a canvas)

Expected Results

Pen-based video annotations implemented in a multimodal video annotator prototype (Creation-Tool, TKB project, collaboration with FCSH/UNL).

Pen-based video interactions implemented in a video editor prototype.

Usability studies with users.



Pen-based video annotations with motion tracking



Pen-based video editing: painting with frames