Jörg Cassens

Norwegian University of Science and Technology (NTNU)
Division of Intelligent Systems (D/I/S)

Panel I: The Task and Control Issues

Workshop on Mixed-Initiative Intelligent Systems
Acapulco, Mexico, 2003
Control Issue

There is no control issue
Control Issue

There is not one control issue, but there are several
Control Issue

There is not one control issue, but there are several

There are different “levels” of control we have to deal with
Control Issue

There is not one control issue, but there are several

There are different “levels” of control we have to deal with

Example Platon's Menon dialog about goodness

- Menon is in control of his studies of philosophy
- Sokrates is in control of the dialog
- They exchange their role in control of the speech situation
Interaction Control

We are very much concerned about the most basic level: who is doing the next step

Important because of the annoying paperclip

View system from different perspectives

Analyzing control issues from different views can affect actual design on the “lowest” level
Machine in control

Habsheim, France, June 1988
Research Topic 1

Need to understand what types of control there are and how they are connected
One reason for use of Actor Network Theory in our approach

→ We are in need of an integrated framework of theories for understanding the usage context
Research Topic 2

Make transparent to the user
User used to traditional tool metaphor
“Adding” proactiveness might make bad things worse (paperclip, adaptive menus)

→ We are in need of design procedures to transport the new way of usage and to deliberately break wrong expectations
In order to understand and build systems with shared control, we are in need of:

- An integrated framework of theories for understanding the usage context

- Design procedures to transport the new way of usage and to deliberately break wrong expectations