



# DEVELOPMENT OF A DIGITAL LECTERN FOR TELETEACHING

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# Overview

- motivation / opinion poll on used media
- requirements
- market evaluation (hard- and software)
- concept and design
- user's feedback
- Outlook

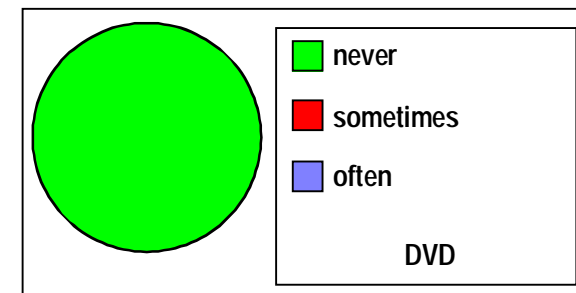
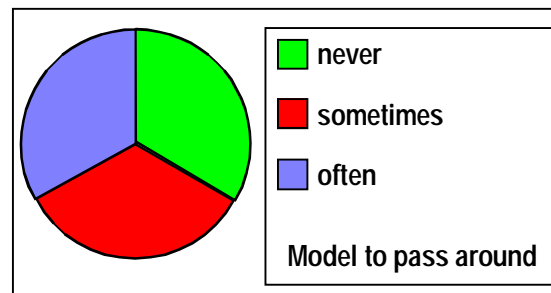
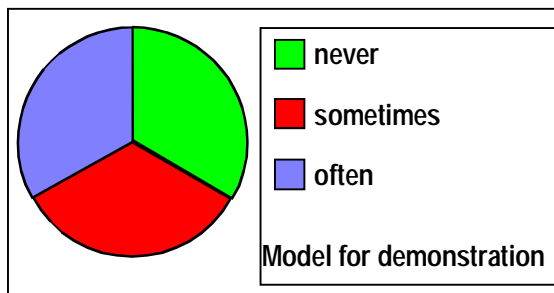
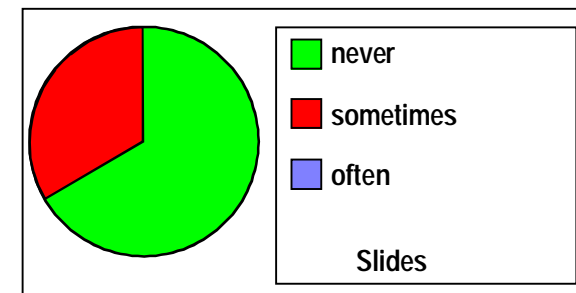
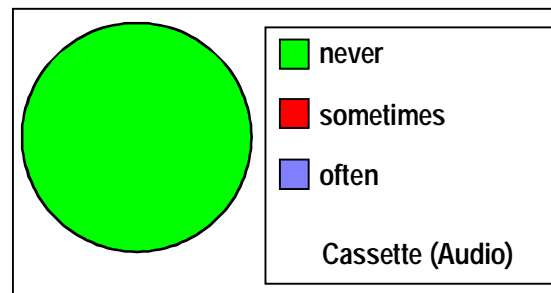
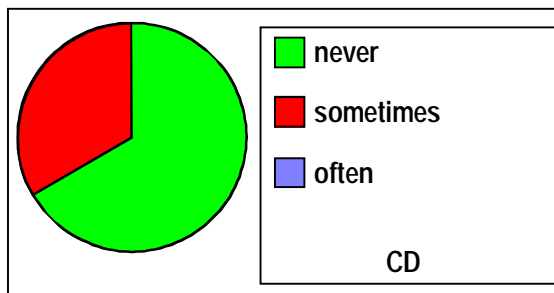
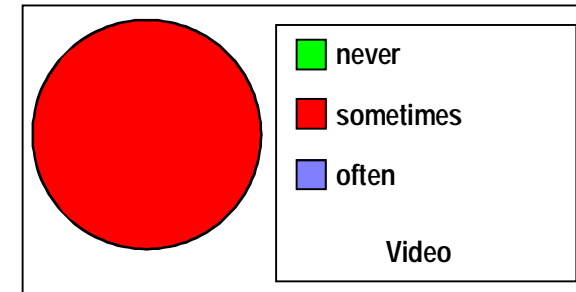
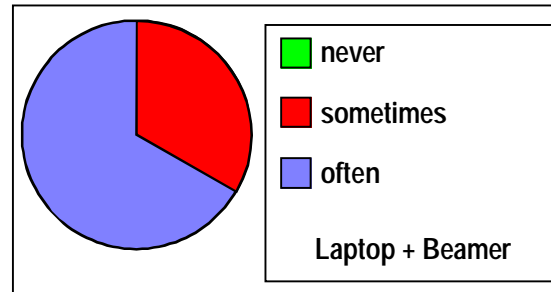
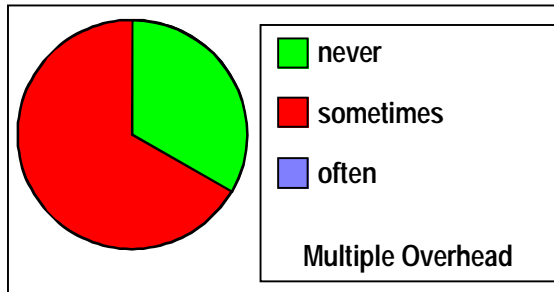
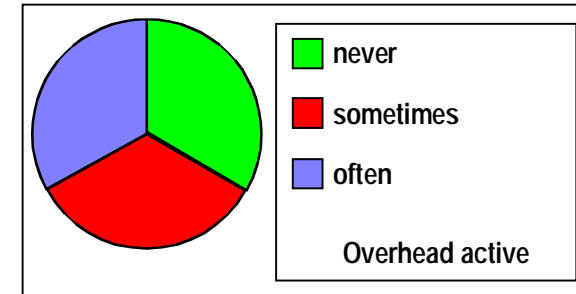
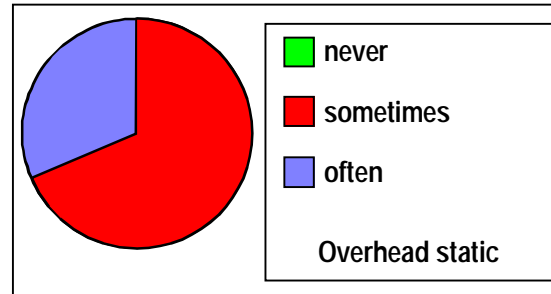
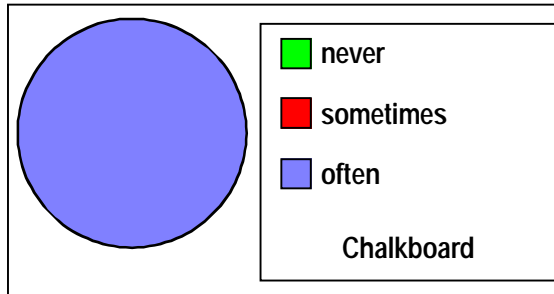
## opinion poll

	never	sometimes	often
Chalk board			
Overhead (static)			
Overhead (active)			
Multiple Overheads			
Laptop + Beamer			
Video			
CD			
DVD			
Cassette (Audio)			
Slides			
Models for demonstration			
Models to pass around			

The questionnaire also evaluated the method of teaching



# opinion poll



## summary of result; requirements (reduced form)

- use in lectures and for presentations
- annotations during lessons
- presentations of objects (look and understand)
- content from CD, DVD, video, transparencies and paper
- audio device, wireless microphone
- USB connector, laptop connection, internet connection
- use in large and small lecture rooms
- attend presentations online externaly
- attend presentations offline

## market survey (some results for hardware)



inductive display



object camera



keyboard

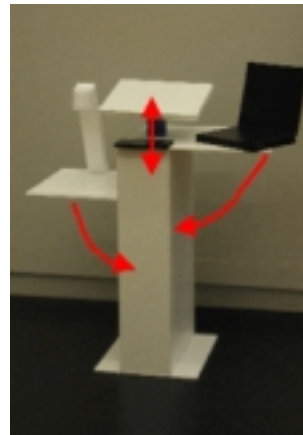
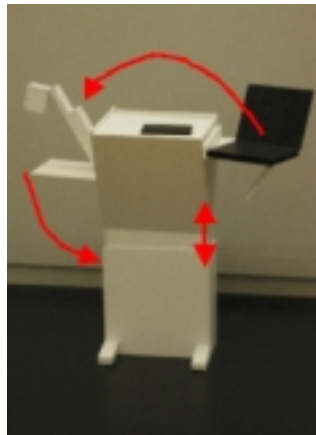
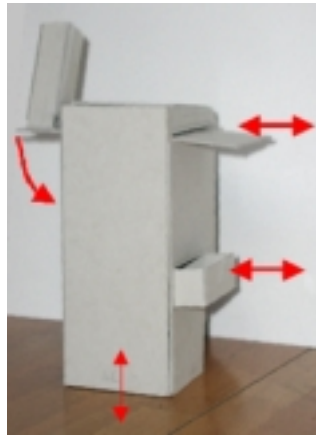


annotation pen



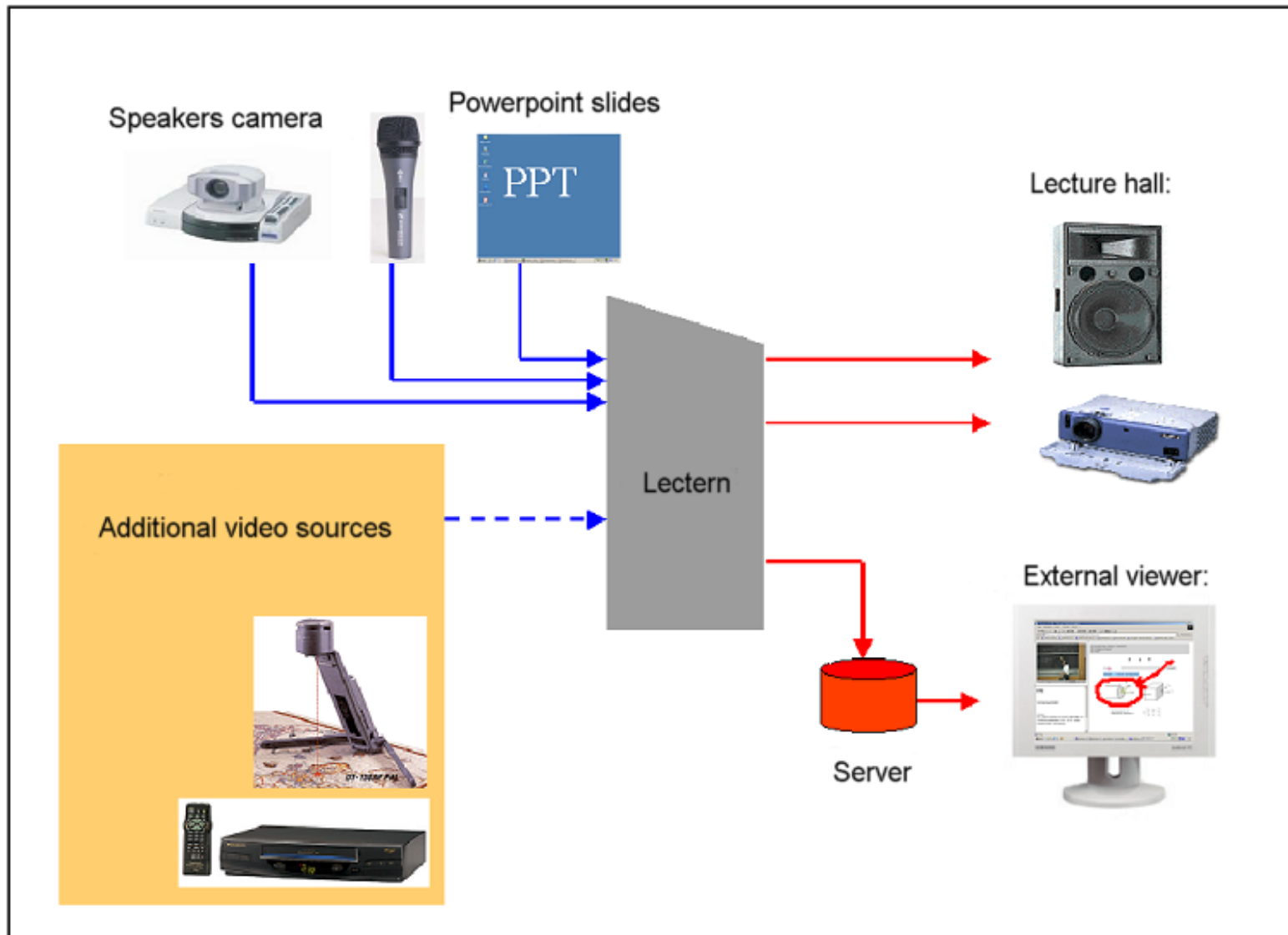
radio transmission

# concept studies

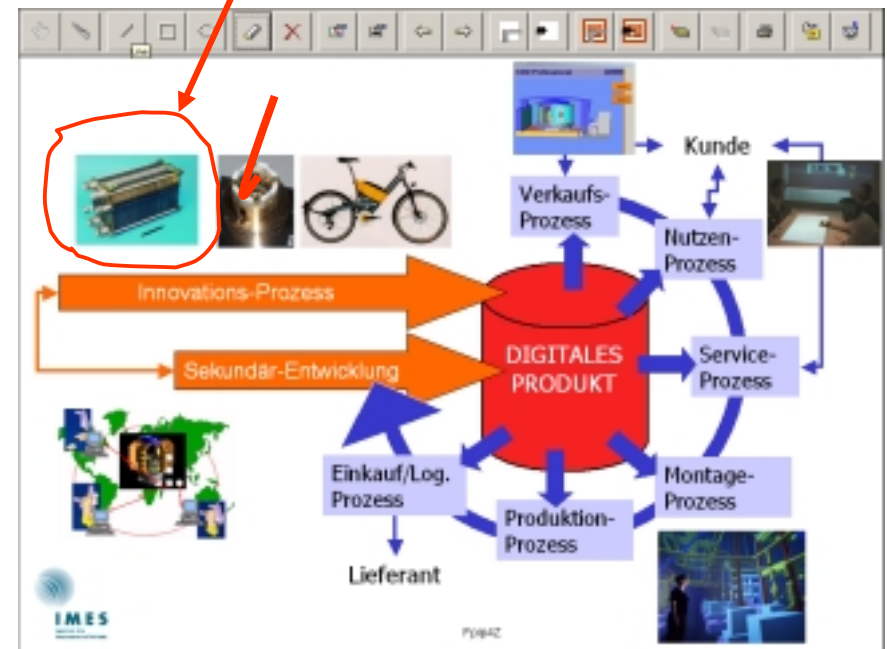




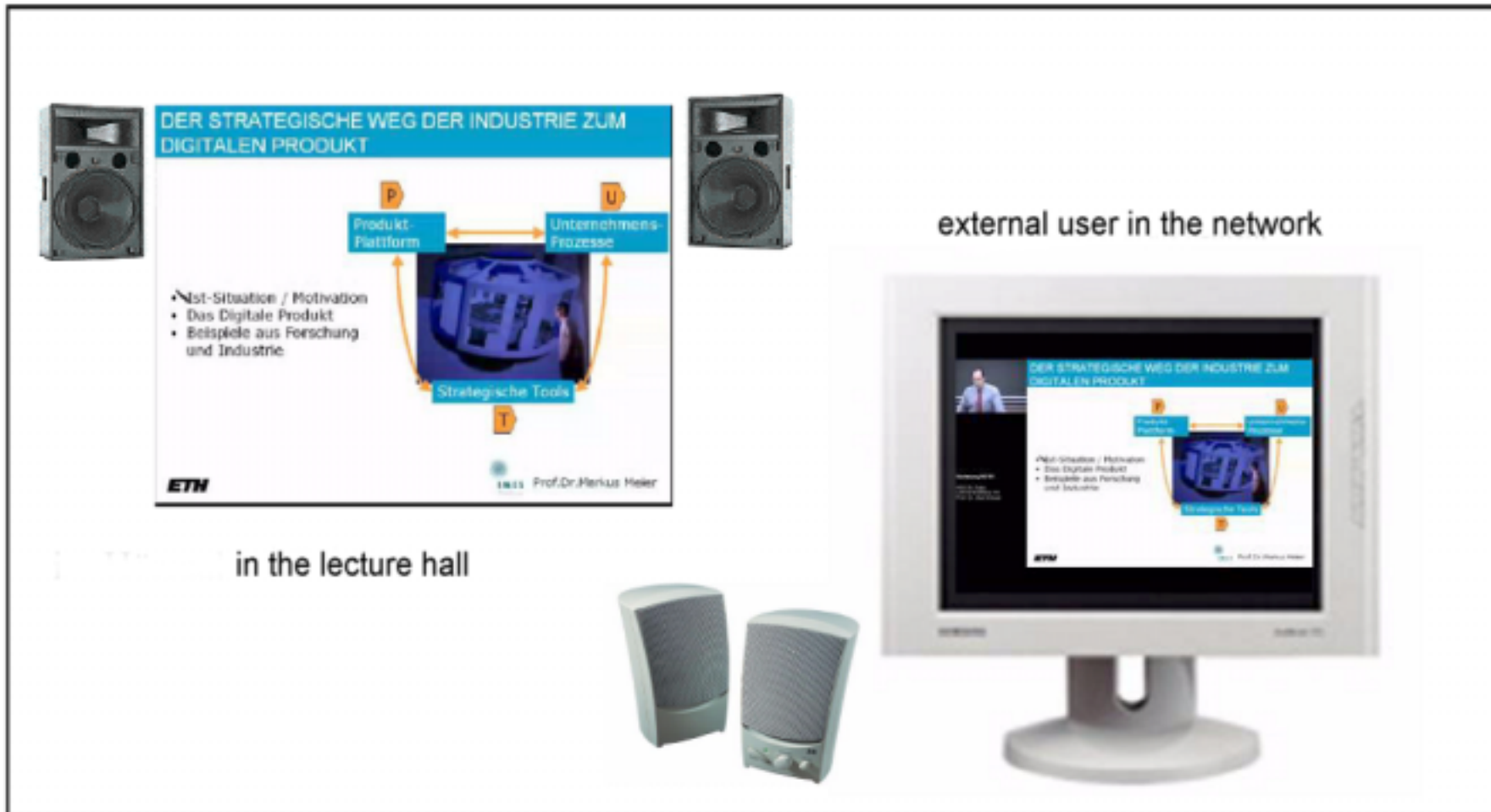
# description



# description (view of the speaker)



# description (view of the auditory)



## some feedbacks

### Speaker / teacher:

- intuitive to operate
- camera forces the teacher to stay more at one place, less movement possible
- Sometimes reflections of the room light in the screen
- Interference of the video-/audio wireless link with cellular phones or wireless LAN
- „don't want to miss the tool in future“

### Auditory:

- Very good visualization
- Ideal if the lecture was not visited
- ideal to repeat for exams
- A digital lecture does not replace attending the real lecture
- Personal contact between teacher and student is still very important
- Only “digital lectures” are not accepted



## outlook

- Optimization of the software parameters to reduce CPU utilization
- Design of a portable variant
- Layout of a wireless link without interferences
- starting marketing activities
- starting production

