Introduction to Workshop

HF Guidelines for CCTV-supervision in control centres

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Content

- Project outline
  - pooled funded research
- Part I – research (May '12-'13)
  - Literature & field studies
  - Laboratory experiments
  - Guidelines - interactive sessions
- Part II – research proposal ('14)
  - visit afternoon Workshop !

CCTV Project goal

- Goal
  develop HF Guidelines for CCTV work systems
- Why ?
  - no evidence based guidelines available
  - no guidelines for remote control, off-shore
  - practice contradicts "theory"
- Nowadays
  - bad image quality
    do you see what you need to see?

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Project outline

- Phase 1: orientation - literature
- Phase 2: 8 field case studies
  - report *Technology and literature review*
- Phase 3 – Pilot experiments
- Phase 4 – Develop *Draft HF Guidelines*
  - 160 days effort + 4 Interactive workshops
  - Budget: € 104.000 (11 partners x € 8.000)

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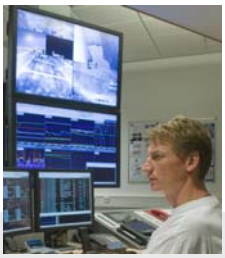
Project limitations

- technology digital/software, IP-based
- not about legal & privacy aspects
- tasks relevant to our project partners
  industry, traffic control, security

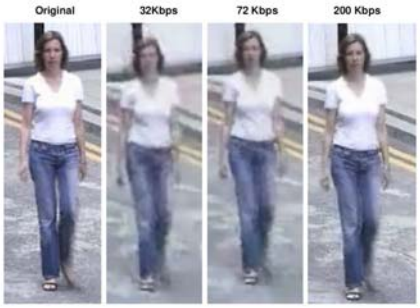
- system
  recording – transmission – display – cognitive processing



Active input – Workshops

Literature (until 2012)

- 40 references
- Keval – image recognition
  - surveillance
- Wood et al. (2007)
  - field experiments
  - object detection

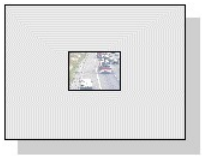


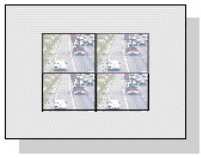
Typical engineering questions

- # screens / operator ?
- # camera views / operator ?
- # camera's / operator ?

- answers:
  - literature: max. 16 cameras
  - # screens limited by visual field (70° horizontal, 60° vertical)

- much unknown!





Conclusions – literature

- HF literature: limited to traffic and surveillance
- Guidelines are often "open" doors
  - things you should think of
  - or already known control centre guidelines
- Tasks typology:
  - detect, monitor (observe), recognize, identify
  - needed: metric for image & task complexity
- Do less with video, more with sensor data

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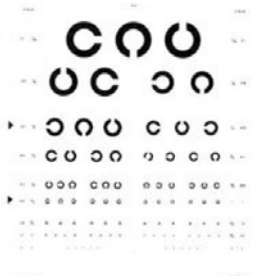
Pilot experiments

- experienced image quality
- compare 3 test charts / methods
- Rotakin: not a valid test procedure.



Landolt – eye sight test

Vidilabs test chart

Rotakin

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Draft Guidelines

- Goal: HF guidelines
  - for the project/engineering environment
  - system approach (MMI)
  - in line with ISO-standards
- Literature: less than expected…..
  …..we did not finish/finalize guidelines

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Content Draft Guideline

- Chapters
  1. Project Ergonomics (= HF engineering process)
     finished
  2. System characteristics (= define system)
     finished
  3. Tasks and jobs
     available, except task allocation/workload indicators
  4. Control centre layout & workplace design
     available, except details of cctv hardware
  5. Image presentation and interaction design
     available, mostly not evidenced & concept of scenes to be worked out

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CCTV-Research Part II

- 3 Work Packages (WP)
  - 1. Concept of Scene
  - 2. Experienced Image Quality
  - 3. Final Guidelines
- Start WP 1 & WP 2 – start November 2013
  - funded by Dutch partners
- WP 3 – Norwegian contribution ?
  - develop guidance for off-shore CCTV use

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Closing

- After lunsj
  - CCTV Workshop
- Aim
  - Show the need for guidelines (cases)
  - Off shore (+ other industries): define CCTV requirements needed
  - Need to establish standards
  - ... become project partner