Using Google Glass to enhance pre-hospital care

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Agenda

• Context
• Goal
• Example case
• Added value
• Technical platform
• Technologies
• Current state of the project
Context

- Pre-hospital care is critical
  - Every minute counts!
  - Some situations need precise medical knowledge
  - Current state: a physician is engaged alongside paramedic crews.
    - >6000 times in 2011 in Valais (>60% of interventions)
    - Takes time to access the accident scene
    - Limited resources (medical and human)
    - Expensive
Goal

Using Google Glass to «bring» medical specialists on an accident scene

• Google Glass allows streaming and receiving information in a non-disruptive fashion
• Access to patients data & precise medical guidance from physicians
Example case
Added value

• Allows physicians to stay at the hospital
• Physicians can help multiple paramedic crews without traveling
• Vital parameters can be stored for more precise diagnosis made at the hospital
• Paramedics can access specific medical knowledge and patient history
Technical platform

Monitoring systems

Bluetooth connection

Paramedics smartphone

Mobile Network (3G-4G)

WiFi from smartphone

Hospital computer for communication with paramedics

Paramedic wearing Google Glass
Technologies

- Android for Google Glass
- WebRTC
  - Web user interface
  - STUN and TURN servers
- Node.js
  - Signaling server
Current state of the project
Conclusion

• Enhancing pre-hospital care in collaboration with Swiss paramedics.
• Google Glass might not be for everybody but can add value for medical staff.
• Hardware needs to be improved
• Real User tests need to be performed
Questions?

• **Short movie on** YouTube
  
  • Search keywords: Google Glass pre-hospital

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