Mobile Apps and Serious Games to Support Emergency Services for Disabled Persons

Fabio Buttussi and Luca Chittaro



Human-Computer Interaction Laboratory (HCI Lab) Department of Mathematics and Computer Science University of Udine

LAB

http://hcilab.uniud.it



Emergency Services and Disabilities

- Emergency training often focus only on the most frequent kinds of emergencies
- HCI Lab also studies innovative ICT technologies to support emergency services in helping disabled persons
- In particular, we focus on:
 - mobile apps for on-field support
 - serious games for training



Sign Language Emergency Communicator

- Support of communication between responders and deaf patients on the field
- Fundamental sentences organized in hierarchical menus browsable with single thumb-taps
- Use of sign language videos



- Confirmation, feedback and reversibility of choices
- Flexible implementation to support different languages
- See the **video** on http://www.youtube.com/user/HCILabUdine



EMSAVE

- Serious game for training in emergency medical procedures concerning disabled persons
- Users can choose what actions to perform among a set of possibilities
- Actions **trigger specific events** in the game, e.g., animations or effects on the patient
- EMSAVE was evaluated with 40 nurses and doctors in the context of an official retraining course
- EMSAVE was effective for retraining ALS skills and acquired knowledge was retained at three months



• See the video on http://www.youtube.com/user/HCILabUdine



Help! The Serious Game

- In Help! The Serious Game, a virtual firefighter teaches the general public how to rescue disabled people
- It includes levels about motor, visual, and auditory disabilities



• Play it on www.facebook.com/HelpTheSeriousGame



More information

 Additional information, including scientific international publications, can be found at: http://hcilab.uniud.it/soccorsodisabili/home.html

- Download the latest HCI Lab apps (on aircraft safety):
 - Learn to Brace http://hcilab.uniud.it/brace/
 - Life Vest http://hcilab.uniud.it/lifevest/







Fabio Buttussi