

# Telemedicine Research and Creative Technologies

update(s): [sites.google.com/site/create10nm2/assignment-s](http://sites.google.com/site/create10nm2/assignment-s)

Bert-Jan van Beijnum  
Telemedicine Research  
Biomedical Signals and Systems  
EWI

[beijnum@ewi.utwente.nl](mailto:beijnum@ewi.utwente.nl)

comment(s): 15/7/2010

telemedicine project(s) / tube(s) / challenge(s)

## Scenario Visualization and Mockups

In telemedicine new ways of provisioning cure and care services are researched. In this research ICT and Biomedical engineering are combined as to make it possible to remotely monitor patients and give automated of supervised feedback. In a user oriented design approach, patients, clinicians, therapists, nurses, are involved already in the early phases of the design process. In order to provide early feedback to these end-users on first design and engineering results, scenarios are developed. A scenario is a story line about life situations in which the telemedicine system under design is assumed to exist and used.

One of our research themes is Mobile Virtual Communities for Telemedicine. In this theme we investigate community based approaches to provide monitoring, treatment and care services. Associated scenarios typically show how people in various roles interact and collaborate to achieve a specific health related objective.

Today, scenarios are text based. To convey the story line better to end-users and receive feedback, visualization of a scenario using virtual reality is the better option.

**Project 1:** In this project a concrete scenario is selected (from one of our telemedicine projects) and a virtual reality animation is designed and evaluated.

At a more fine grained level, the details of the man-machine interface (mmi) can be considered. An intuitive and easy to use user interface is essential for user acceptance. The main technique used in the early design phases is known as mockups. A Mockup is a computer prototype of the user interface showing how the real interface will look like, but without doing the real work.

**Project 2:** In this project mockup tools are investigated and applied to design the user interface of a telemedicine system as envisioned in one of our project.