



Telemedicine research

- × Interface design
- × Usability
- × Implementation aspects
- × User-centred processes

Teleradiology

Very short history of telemedicine

Wilhelm Einthoven, discoverer of the mechanism of the **electrocardiogram** made remote consultations as early as 1906 using phone lines.

In the 1920s shipping companies started using consultations over radio, for example in emergency situations when far out at sea.

In 1979 *Hounsfield* and *Cormack* were awarded the Nobel Prize for **computer assisted tomography**. This technique makes improved methods of diagnosis possible, including quantitative analysis and transmission of images.

Teleradiology

The objective of teleradiology is the transmission of radiological images for the purpose of interpretation and consultation. Digitally transmitted images can be presented, analyzed and discussed simultaneously at different hospitals.

The **CHILI** system is able to transmit and share radiological images between different sites. To date, it has been used to import and view almost 7 million images.

Telemedicine with honors

The system was awarded the European IST prize, both in 1997 and 2001, for innovation and technical excellence in application of information technology.

For more information, see:

www.chili-radiology.com



Designed for usability

The key design decisions for CHILI are made with usability in mind. For example, the application lacks the traditional connection to the desktop metaphor and has instead a work task oriented approach.

The process begins with a modern image capturing modality.



The images are reviewed at a Viewing Station.



The interpretation often benefits from, or requires, on-line consultation of experts.



The medical round at Salem hospital



A leading cancer expert at the German Cancer Research Center

New technology makes mobile work possible, and improves accessibility and response time.



The system is developed in close co-operation with leading medical experts in the field.



Even Santa uses the system!

