

2nd Danube eRegion Conference – DeRC 2012

Grand Hotel Union Ljubljana, Slovenia, Monday - Tuesday, September 24-25, 2012

<http://eLivingLab.org/CrossBordereRegion/DeRC2012>

Cross-border eSolution/eService Prototype Development

Prototype title: E-COLLABORATION AGAINST RHEUMATIC DISEASES

Short description of the prototype

In Slovenian hospitals about 10 000 patients per year are under medical treatment solely for rheumatoid arthritis. Other rheumatic diseases are on increase too. Each year there are more than 600 new patients. There is a significant deficit of rheumatologists (1 per 82 000 inhabitants), so patients experience longer waiting periods. Early finding and accurate reporting of symptoms is crucial for successful medical treatment to prevent permanent deformations of patient's extremity joints.

The prototype aims to develop a collaborative web and mobile application which will measure parameters of swel and inflamed extremity joints using photogrammetric measuring techniques on simple amateur photographs made by smart phone or handy camera. Photos should be periodically made by patients themselves. Patients would also insert photos into the application which would automatically perform calculation of anthropometric parameters and temporal metric comparison of joint change from older photos. On the other hand, the recipient of calculation results is also the doctor, however without the need to personally inspect the patient.

The expected benefits of this prototype are faster decision making for better medical treatment; prevention of invalidism; inovative stimulation tool for patients (adults, children, parents) for better healing results; continuous documentation of symptoms, objectivity; less hospitalizations, and less clinical visits.

The main users of this application should be patients, or parents in case the patients are children, and rheumatologists. The application could be used in any country. The collaborative data base could be used also for exchange of medical opinion and for education of experts.

In the past 50 years Geodetic Institute of Slovenia had a leading role in Slovenian photogrammetry – making measurements from photos for various applications, such as, eg., spine, stomach and facial mapping in medicine; aerial and close range photography for relief topography, objects of cultural heritage, construction and machinery elements, archaeology, and traffic accidents; satellite remote sensing for disaster management, agriculture, and land cover.

ICT requirements for the prototype deployment:

Web application, smart phone mobile application

Proposer (contact person)

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Existing partners

In negotiations.

What type of partners are we looking for?

Hospitals; Health associations; Ministries of Health, Medical Universities

To be emailed as soon as possible and not later than Thursday, July 26, 2012 to Alenka.Slabajna@JAPTI.si
Public Agency of the Republic of Slovenia for Entrepreneurship and Foreign Investments