

Social Network Enhancing Self-care and Mitigating Isolation in Long-duration Disability with Built-in Knowledge Extraction Tools

Abstract

Background: Web 2.0 is a present and future trend in our relation with the WWW that promotes the creativity, information exchange and user collaboration. Web 2.0 is applied in many different forms like wikis or blogs, and one of the most successful applications are social networks which are online communities with participants sharing interests and lifestyles.

The social interaction of the disabled people is clearly limited by their mobility constraints leading, in some cases, to health problems related to isolation, such as depression. Web 2.0 is an invaluable means for dealing with such scenarios and disabled communities must take advantage of it.

On the other hand, the quality of life is a major concern for the care provision stakeholders (i.e. industry, research). The current methodology for the gathering of clinical information using surveys and personal interviews does not address their needs because is inefficient; time and resource consuming; and not scalable.

Objectives: In this contribution, we present *Círculos de Salud* (from Spanish, Circles of Health), a project devoted to conceive, design and implement an advanced social network for disabled communities. The social network enables a regular contact among individuals sharing the same condition what eventually results in an improvement in self-care and auto-responsibility.

The ultimate goal of *Círculos de Salud* is not only to implement the functionalities of traditional social networks, but also incorporate intelligent analysis tools (Health Monitoring Tools, HMT), which provides the users (patients and clinicians) with information about the progress of disability, assessment of the quality of life and, according to their profile, give to customized access to contents.

Methods: The users of *Círculos de Salud* are requested to fill in a participant profile form including their personal contact data like login and password, but also information related to their disability on a regular basis.

The ICF (International Classification of Functioning, approved by the WHO) is used as a common framework to describe the bio-psycho-social features of the patients in their medical profile. The data gathered by means of different scales is then mapped to this framework and used afterwards to perform the HMT analysis.

Healthcare stakeholders do need a manner to obtain reliable and up-to-date information from disabled people in order to understand their needs. *Círculos de Salud* holds a corpus of patients' data, which allows to extract scientific evidence and contrast political measures, with direct implication on other fields, like policy-making.

Results: *Círculos de Salud* will provide its users with a complete communications platform and tools for the analysis of the status of disability (HMT) in order to promote user's autoresponsability and self-care. In parallel, the healthcare stakeholders take advantage of the corpus of population data to assess the status of the disability.

Currently, pilot testing is taking place and conclusions will be extracted according to the user's experiences.

Conclusion: Rehabilitation programs for people suffering from disability are focused on recovering people's health which is driven by 3 basic requirements: healthy body, autonomous mind and social interaction with other people. These rehabilitation therapies are focused on the first two requirements while the social interaction stays in the background. *Círculos de Salud* is called to tackle the social interaction by providing its participants with an advanced social network along with built-in knowledge extraction tools for assessing their quality of life.