

A Mobile Application to Improve the Quality of Life via Exercise and Rehabilitation

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1 Abstract

The prescription of physical exercise should contribute to reduce or limit sedentary trends, such as excessive use of television and computer. At a time when the use of technologies tend to overcome the time spent in physical exercise, it seems useful to combine these two trends in a relational perspective. For example, encourage the walking activity as a form of active transport or as a leisure activity is a simple way to encourage physical exercise that can be accomplished with the development of software for smartphones or tablets, which can be used to monitor and analyse the physical activity.

The range of capabilities and dependence generated by these technologies provide a unique relationship with its users. This suggests that mobile devices have the potential to influence behavior and possibly modify it for the benefit of an increased quality of life.

In a nutshell, motivation to perform physical exercise as well as providing safe train programs for its practice seem to be priority tasks in improving the quality of life of populations. The ongoing challenge is to develop interventions (applications) that promote adherence to exercise in a predominantly sedentary society.

2 Objectives and Tasks

- T1** To review the related literature
- T2** To collect the requirements and define system's architecture
- T3** To select the test samples and experimental set-up
- T4** To implement, test and deploy the application
- T5** To write up a MSc thesis and a scientific paper

3 Timetable

- T1** 1 month
- T2** 1 month
- T3** 1 month

T4 4 months

T5 2 months

4 Expected Results

- 1 journal paper
- 1 MSc thesis

5 References

Fanning, J., S. Mullen, and E. McAuley, Increasing physical activity with mobile devices: a meta-analysis. *Journal of Medical Internet Research*, 2012. 14(6): p. e161.

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Glynn, L., et al., SMART MOVE - a smartphone-based intervention to promote physical activity in primary care: study protocol for a randomized controlled trial. *Trials*, 2013. 14: p. 157.