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The role of social interaction on users motivation to exercise: A persuasive web framework to enhance the self-management of a healthy lifestyle

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### ACCEPTED MANUSCRIPT

The Role of Social Interaction on Users Motivation to Exercise: a Persuasive Web Framework to Enhance the Self-management of a Healthy Lifestyle

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#### Abstract

The current research guidelines of the European community suggest the importance of the development of systems that help users manage their health themselves. The increasing amount of communication technologies and devices from which users can access information, and the possibility to interact through social media channels, play an important role in this scenario. Based on these considerations, in this paper we present an innovative persuasive web application, designed both to exploit social networking sites and to cooperate with a mobile application that already operates in the e-health and motivational domains. In particular, the innovative aspects introduced by the web application are the possibility to access also from a web browser some features previously available only through a mobile application and a more direct and user-friendly integration of social network sites. Indeed, thanks to an extensive interaction with the Facebook social network, users are allowed to share their experience with the application. This generates a strong social influence effect, which inspires and motivates other users to improve their exercising activity. Experimental results put in evidence that our web application, thanks also to social interactions, is favoring an enhancement of users' motivation to a more active lifestyle. This is mainly due to its capability to have an impact on the other users thanks to the posts generated on the Facebook social network.

Keywords: Persuasive Technologies, Social Computing, Pervasive Technologies, Human Computer Interaction, Healthy Lifestyle, Social Web.

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