Design Guidelines for an Enhanced Interaction Experience in the Domain of Smartphone-Based Applications for Sport and Fitness

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Abstract : Nowadays, several research studies point up that an active lifestyle is essential for physical and mental health benefits. Mobile phones have greatly influenced people's habits and attitudes also in the way they exercise. Our research work is mainly focused on investigating how to exploit mobile technologies to favour people's exertion experience. To this end, we developed an exertion framework users can exploit through a real world mobile application, called BLINDED, designed to act as a virtual personal trainer to support runners during their trainings. In this work, inspired by both previous findings in the field of interaction design for people with visual impairments, feedback gathered from real users of our framework, and positive results obtained from two experimentations, we present some new interaction facilities we designed to enhance the interaction experience during a training. The positive obtained results helped us to derive some interaction design recommendations we believe will be a valid support for designers of future mobile systems conceived to be used in circumstances where there are limited possibilities of interaction.

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