

## **SUMMARY OF THE MOBILE TECHNOLOGIES DEVELOPMENT FOR HUMAN HEALTH**

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On average, people use phone for five hours a day. Moreover, users themselves are sure that they address device twice less. Besides, smartphone is already not just a phone: for example, a quarter of British users do not even ones a week exploit it in a traditional mode, i.e. for calls. Such intensive usage of phone has made it perspective and convenient device for constant monitoring of user's body state.

Applications serving not only to simplify communication or for entertainment, but also for education, health monitoring and even for diagnostics were created.

The purpose of the paper is the review of the perspective methods and ways of the mobile technologies application to the person everyday life and during the sport by the data from the literature.

First of all, we should mention that different mobile devices software benefit human health, and raise the level of its knowledge. Some applications allow to give important information to a certain group of people in an accessible form. In the modern world, such work is particularly necessary, since the gap between real scientific knowledge and the level of awareness of ordinary people is great.

In addition to informing about scientific achievements mobile devices are able to collect and process data about the user himself. One of the most famous classes of devices that may be connected to the smartphone are fitness trackers, such as Jawbone UP and Fit-Bit. The pedometer is already part of some smartphones. In the steps, exactly, many health organizations set the minimum level of necessary physical activity today. Such devices and applications allow to control the amount of physical activity of the user.

Special place in new technologies is assigned to professional athletes and just to fans of physical activity. Nowadays, the technique can register the individual endurance, and achievements of individual athletes and the teams in the whole. In addition, devices help physicians to control physical exercise and activity to improve athletic performance. Traditionally, these are already mentioned pedometers, accelerometers and gyroscopes, devices with built-in GPS-

receiver for recording motion, as well as various sensors for recording physiological characteristics, such as heart rate, temperature, etc. Today, new devices are added here, such as a sensor that determines the loss of fluid during training.

However, in addition to improving the physical form and effectiveness of training, scientists have another purpose, the minimization of trauma. For example we mention here sneakers with microdevice from the Spanish Institute of Biomechanics of Valencia (Instituto de Biomecánica de València) and the shoe production company KELMÉ.

The equipment can "teach" the user the correct technique of running and thus prevent potential trauma. The integrated microelectronic measuring system collects the biomechanical parameters that characterize the runner's technique during the passing of the distance, and wirelessly transfers it to a mobile phone. The mobile application itself processes the data in real-time, sends alerts about changing the running style, if necessary, and even requires to stop the run if the probability of trauma is very high. Combining obtained characteristics with the readings of the pulsometer, one can track the level of the athlete fatigue. Finally, the program is also able to operate as a social network. Fans of physical activity will be able to exchange experiences and useful information.

So, in this paper the mobile technologies used in everyday life of a person and in sports are studied. Part of the technologies is informational, i.e. they are called to inform people about scientific achievements. Part of the technologies collects and processes information about the user, thereby allowing the users, for example, monitor their health in a better way. And part of the technologies is designed to preserve health and even life by minimizing the risk of traumas.

In order to be successful, applications and devices must satisfy a number of requirements: be small in size, inexpensive and consume little energy. In addition, it is necessary to properly motivate the person to use it. It can be concluded that nowadays mobile technologies are ones of the most actively developing and promising.