Project:	**Document:**
Mobile Wellness	Mobile applications for healthcare and wellbeing

Mobile applications for healthcare and wellbeing

The recent advances in microelectronics have greatly reduced the cost of smartphones, making them almost a commodity device, and driving up their market share in Europe and North America to about 60% of the total mobile phone market. Smartphones are equipped with several sensors, such as accelerometer, microphone, GPS and camera, that make them pervasive platforms for mobile sensing. They are personal devices that are close to their users during their daily routine, thus they can be exploited to sense surrounding context and infer user's current activity.

The knowledge of the user's activity and context enables a wide range of services for healthcare and wellbeing that can run directly on smartphones, such as providing training tips, monitoring physical and social activity, monitoring health parameters, detecting falls and aiding independent life. Related topics of interests are:

− leverage of social networks users wellbeing profiling;
− architectures for distributed, highly scalable, healthcare-related applications;
− innovative algorithms and approaches for automatic inference of wellbeing;
− sensor data fusion;
− integration of external sensors;
− adaptive duty cycling technique for continuous sensing.
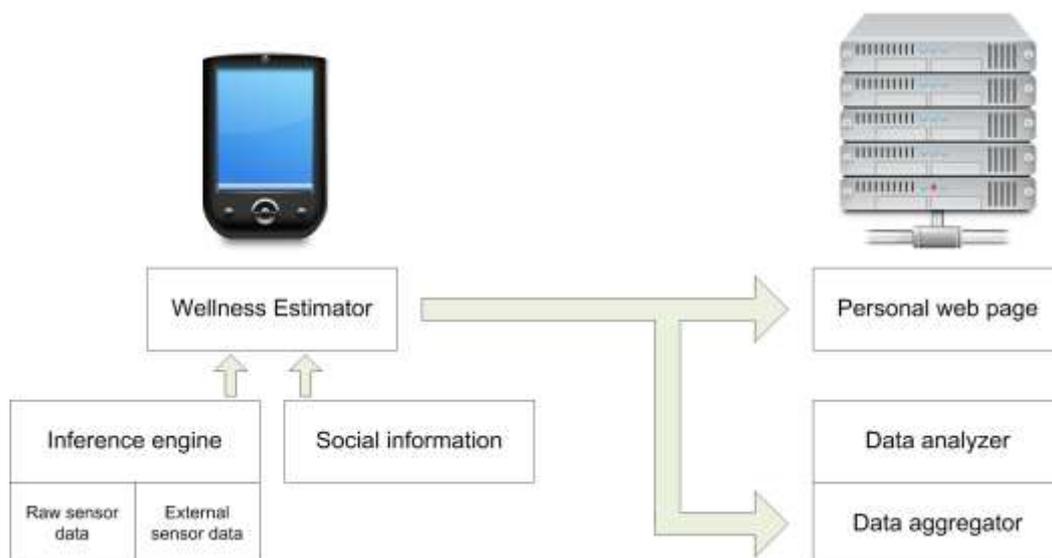
Distributed architecture of the mobile wellness system. Raw data from smartphone sensors and external sensors are fed to a inference engine. Resulting data, coupled with social information gathered via social networking mobile applications, are used to estimate wellness. Services running on the cloud collect data and aggregate it to provide the user with a comparative analysis of his wellbeing.