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MENTORbike

Intelligent and Automated Training Support with a Pedelec

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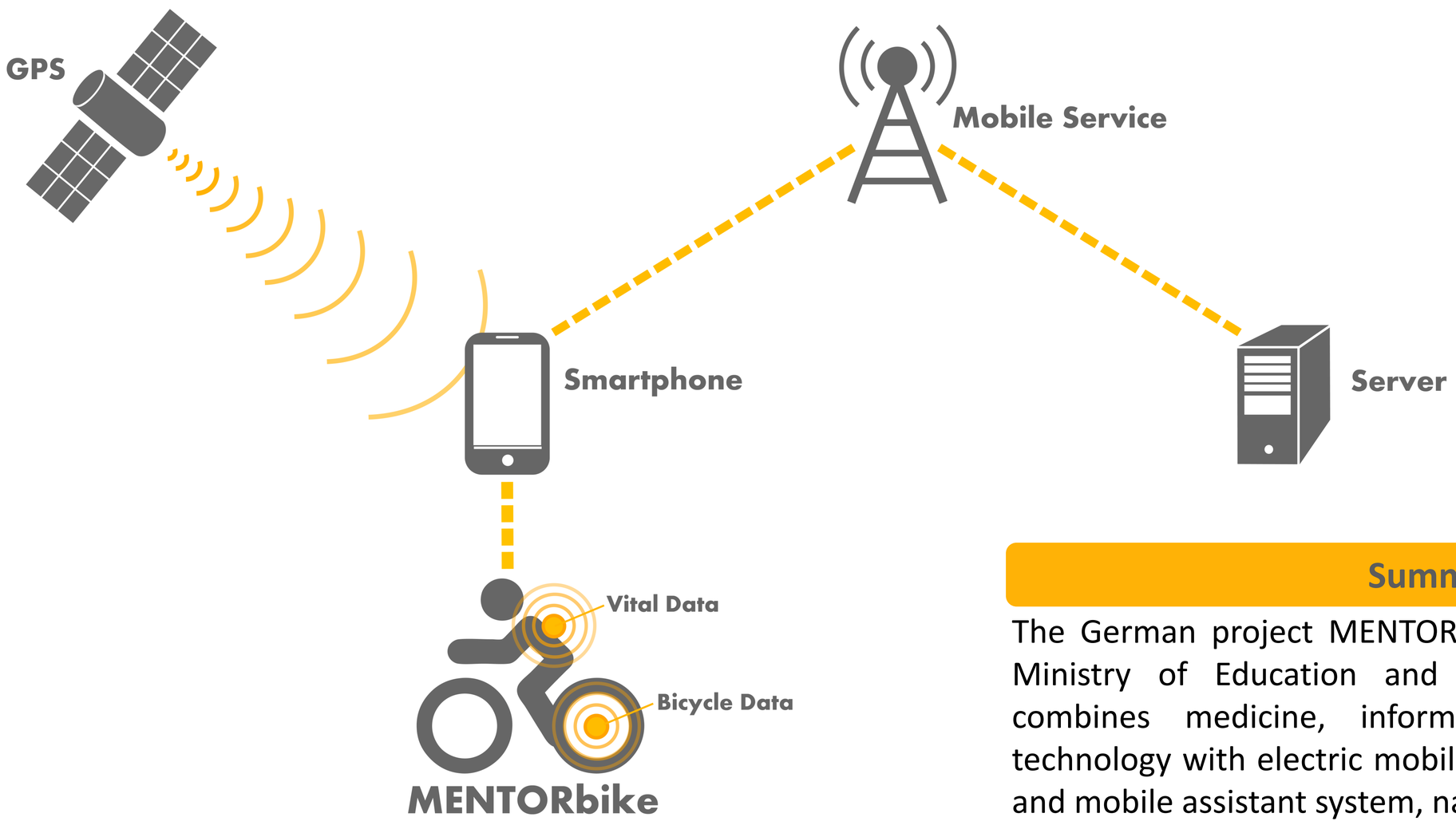
Concept

MENTORbike is a product service system centred around an intelligent pedelec. The MENTORbike collects real-time data such as speed, training load and performance, ECG, heart rate, breathing rate and GPS position. The data is submitted via a connected mobile device to a server backend for real-time processing, access, and storage. The acquired and processed information is available to the user and associated health professionals and can be individualized to their respective needs and demands resulting in a highly adaptive service.

Supporting current trends in e-health, MENTORbike targets healthy individuals interested in health preservation and prevention as well as patients suffering from chronic health conditions like coronary heart diseases, hypertension and peripheral vascular disease during rehabilitation.

Examples

Examples of MENTORbike services are real-time control of the pedelec motor for greater training efficiency, recommendations of training routes, or feedback about vital parameters. MENTORbike provides a monitoring service which is of particular interest during rehabilitation and prevention scenarios. Examples of additional web based services are organizing training meetings online, exchanging training experiences in a social community, or the connection to external commercial and non-commercial services such as electronic information retrieval services. MENTORbike provides personalized and situation-aware monitoring and feedback and responds to the different needs of users before, during, and after an exercise or training unit. The project started in 2012 and will be completed in 2014.



Summary

The German project MENTORbike, funded by the Federal Ministry of Education and Research (FKZ 1IS11034D) combines medicine, information and communication technology with electric mobility to an adaptive, intelligent and mobile assistant system, namely MENTORbike.

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