

Health Navigator



Motivation

Physical activity is very important for a healthy lifestyle. However, the intensity of the activity is important, too. Especially less experienced people have problems to find the right intensity for their chosen activity. For people with cardiovascular diseases, this missing experience can even be dangerous.

Goal

The HealthNavigator aims to improve physical fitness of users and increase confidence about their physical abilities. During walking or cycling, users can observe their vital parameters as an objective measurement of the intensity. Additionally, the system helps users to reflect their perceived exertion, to allow them to learn about their personal limits. The HealthNavigator helps to reach the right intensity by giving hints and by proposing alternative hiking or cycling routes which are less or more exhausting.



Health Status Monitoring

The HealthNavigator helps users to stay within their physical limits. It observes the heart rate and breathing frequency as vital parameters to help users to achieve this.

Additionally, the HealthNavigator uses the Borg-RPE-Scale to obtain the subjective exertion of users to give advices for the walking speed or to propose another, more suitable route.



Numerical	Description	Graphical
6		
7	Easy	
8		
9	Very Light	
10		
11	Fairly Light	
12		
13	Somewhat Hard	
14		
15		
16	Hard	
17		
18	Very Hard	
19		
20	Maximum	

Providing Feedback

The HealthNavigator uses an interaction design with three different levels of accuracy. The smartphone always displays detailed information about the route and the health status. A SmartWatch shows less detailed information on the screen, so users don't have to look on the smartphone so often. Health related information are also displayed with vibrotactile patterns on the SmartWatch, which allows users to get abstract information about their health status.



Touristical guidance

Nearby health aspects, the HealthNavigator also supports touristic guidance. Potentially interesting points are highlighted on the map and can be integrated into the hike. Further detail like a description or opening hours are also available to the user.

The information is tailored for hiking and includes e.g. benches for resting and rescue points if medical attention is needed.



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