Pulsic: An Intelligent Music Player for Joggers

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The aim of this study was to demonstrate that it is possible to influence the sporting behaviour intentionally by music and therefore to prove the concept of Pulsic - an intelligent music player. It has previously been shown by researchers that listening to the music whilst jogging can affect various characteristics of running - speed, heart rate, pace and cadence. We examined this phenomenon experimentally. Study subjects performed two identical running sessions in an indoor sports hall on a fixed distance; the only difference between the sessions was the type of music participants listened to during jogging: music was with either high or low beats-per-minute rhythm. Measures of heart rate, pace, running speed and time were collected and analysed with spreadsheet software regarding to music type, training experience and gender. Indeed the heart rate differed during running sessions; however it was not directly linked to the rhythm of music. We also noticed that running speed was less affected by music among participants with higher training experience compared to least experienced runners. We showed that the development of an intelligent music player, which would help inexperienced jogger to regulate running speed and avoid overexertion, is a realistic goal, provided that the device is simultaneously able to detect pulse rate and speed of jogger, select music with different tempo and analyse the effect on-the-fly.

Awards Won: