Restful Sleep Tracker

Project Description

Routine is a key element of ensuring that you have a restful night's sleep. A regular bedtime, and waking time, ensures that your body is able to follow appropriate cues and wind down accordingly. Many technological solutions are aimed at helping people get better sleep – think about the 'night time' settings on your monitors or phones, for example.

A key element in the arsenal for improving sleep is the tracker. At its most basic level, a sleep tracker can manually track key points of data about sleep: The time a person goes to bed, when they rise, and how they feel upon awakening. At a more advanced level, some sleep trackers have built-in functionality to automatically track various data: Activity during sleep hours, sounds during sleep, etc.

The objective of this project is to research existing sleep tracker apps, and to investigate the literature and theory on sleep tracking to implement your own version of a sleep tracker. This might be a website, or more likely a mobile app, which encourages regular tracking. You may wish to research and incorporate aspects of gamification, rewarding the user for engaging with a regular nighttime ritual, for example.

Existing Examples

- SleepCycle: https://www.sleepcycle.com/
- iOS Sleep Schedules: https://support.apple.com/en-gb/guide/iphone/iph2d7daf6fc/ios
- Sleep as Android: https://sites.google.com/site/sleepasandroid/

Expected Deliverables

Most likely a mobile app (though could also be a website or desktop app, but this would make it more difficult to incorporate automated tracking) which allows a user to track their sleeping habits. You could also investigate integrated hardware solutions and their connectivity to other devices (e.g. smart watches) if you have the hardware readily available.