

Master (& Bachelor) IS Project: Developing a green tips app for mobile devices

Project scope

There are many ways that aim to influence individuals towards increased pro-environmental behavior. One of these ways is to use (digital) *nudges* – defined as functions, initiatives, interventions, gentle hints, or suggestions (Kretzer & Maedche, 2018; Mirsch et al., 2017) that seek to “maintain[s] freedom of choice while also steering people’s decisions in the right direction” (Sunstein, 2014, p. 17). They work without i) using force or penalties, or limiting options, or ii) necessarily making people notice that they have been influenced (Kretzer & Maedche, 2018). They also may be both, visible as such (e.g. reminders (Sunstein, 2014), or feedback messages (Schneider et al., 2018)), but also hardly recognizable (e.g. default settings (e.g. (Ajzen, 1985))).

One specific type of these nudges are *sustainability* or *green tips*. These text-based messages are “voluntary, easy to do, quasi-costless and intended to be useful for a large number of people” (Grolleau et al., 2017, p. 259). They were, for instance, successfully used to nudge people towards more sustainable printing behavior (Degirmenci & Recker, 2016).

To increase the likelihood for people to follow a nudge – and consequently also behave more environmentally friendly, – they may be specifically tailored to a users’ personality traits – e.g. agreeableness, consciousness, extraversion, neuroticism, and openness, as described by the Five Forces Model (FFM). A highly extraverted user may for instance be reached, by triggering his/her desire for novel experiences, and suggesting him/her to try out a new pro-environmental behavior. A highly conscious user on the other hand, may be nudged by addressing his/her obligation as a human being to preserve the natural environment.

The goal of this master project is the development of an app for mobile devices – ideally for ANDROID devices. This app is required to make use of personality dependent nudges and aim to influence its users towards increased pro-environmental behavior.

Among other things, this app should contain the following functionalities:

- a login and user administration process
- a method to categorize users based on personality traits
- one or multiple mechanisms to deliver sustainability tips and / or respective user-specific notifications to users
- a survey functionality (including export of data)
- functionalities to measure and catalogue the self-reported pro-environmental behavior of the app users

The development process should contain the following tasks:

- Requirements engineering, e.g. through interviews
- (Partial) development of sustainability tips and personal notification
- Coordinate requirements with stakeholders
- Clarification of data protection issues
- App design and implementation
- Testing of the app
- Documentation

This includes the evaluation of different tools or programs for the development of the respective platforms. The presentation of the app should work flawlessly on the selected versions of end devices running the selected ANDROID versions. The master project also includes a theoretical examination of the technologies and potential customer journeys.

This master project is recommended for groups of at least 4 students. Prior experience in both (ANDROID) app and database implementation and management is strongly recommended.

Project team

All the participating students (Bachelor and) Master will be grouped into a single project team

- The students will, however, may further be divided into sub-teams, which allows the accountability and responsibility for the given tasks to be clearly defined.
- Master students will have a larger number of tasks (than Bachelor students) and will take leadership roles in managing the sub-teams and conducting the quality assurance of the deliverables.

Project Registration

Interested Bachelor and Master students (or groups of students) can apply for this project by submitting a) a *current grade transcript* and b) a *brief motivational letter* by **Wednesday, 03.11.2020, 23:59**. Please send your application, including the relevant documents (in PDF format), via email to **Helge Schmermbeck** (helge.schmermbeck@uni-due.de), using the subject line **[IS project FT2021] Green tips app**. Shortly after the submission deadline, you will receive information via email about your acceptance and the date of the initial kick-off meeting for this project.

References

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