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Scenario-based design

Homework #2

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1 Initial Idea

Create an initial idea of the new health or wellbeing related application. The intended end users of the application can be e.g. healthcare professionals, patients, caregivers, elderly people, students, etc. or a combination of these. Consider the end user group(s) you wish to focus on in your design.

AdapativeFitness, or A-Fit, is a novel idea for a fitness mobile application. The main idea is that the application will not only adapt to the physical and health-related profile of the user, but also to the energy levels, mood, and overall reality of each and every moment the user decides to exercise. Of course, the profiling is expected from any app of these characteristics, following the user's diet, exercise, weight, and the like; as well as the possibility of sharing this with their healthcare professionals. But going beyond that, the reality for many people is that adapting to a strict dietary and workout schedule is difficult, and many times one may simply not feel like eating exactly what is scheduled, or spending that much energy exercising. Instead of penalizing these behaviours, A-Fit shall instead offer alternatives and adapt the rest of the plan accordingly. If, for instance, instead of working out for an hour, the user choses to instead do so for 15 minutes, the A-Fit is to adapt to this behaviour, proposing alternative workouts for the next session to make up for that, reducing caloric intake in that day's diet, or whatever is necessary.

The main focus with this application is the general public, but specially those with neurodivergent behaviours, mental health issues, and alimentary disorders. By having a non-judgemental guide that offers alternatives and does not penalize skipping a day's workout or doing it double if the user feels like that, the idea is to help this target population back on track with healthy habits by offering a path to that goal that is safe, comfortable, and tailored to every individual reality; while allowing for mess-ups and inconsistencies.

2   Scenario-based design method

Familiarize yourself with the scenario-based design method by reading the article Scenario-Based Design by Rosson & Carroll in chapter 48 in Jacko's Human Computer Interaction Handbook: Funda-mentals, Evolving Technologies, and Emerging Applications, Third Edition. Part of the exercise is to find the electronic version of the book, which is available in Proquest via Aalto library services, `https://primo.aalto.fi`*.*

Through Aalto Primo and ProQuest, the book is easily readable online [1].

3   Scenario Creation

Learn how to create scenarios by reading the related chapter from Alan Cooper's book "About Face" (2014) which introduces Scenarios as a design tool. Find and read Chapter 4 (Part I: Goal-Directed Design / Chapter 4: Setting the Vision: Scenarios and Design Requirements). You can read the book online (available in Proquest via Aalto library `lib.aalto.fi` *). Should you prefer getting access to the physical book, there are some copies available in the library, too. Please take into consideration the limited availability of physical books.*

Now through Aalto library, the book is again easily accessible online [2].

4   Scenario for the application

Create the scenario for your own application: Following the five (5) steps and related instructions presented in Cooper's book chapter "The Requirements Definition Process"; While creating the scenario, take a look at the chapter 3 "Modeling Users: Personas and Goals" from Cooper's book.

A-Fit as a tool for a user with mental health challenges: Amaya is a 24-year-old student that has had recent encounters with anxiety and post-pandemic depressive episodes. Having to fight these challenges combined with the intense workload of her master's degree and a part-time job leave her with little time to think about following a healthy diet and a workout habit. However, she does want to incorporate workouts that make her feel better, as well as have a balanced diet that allows her to keep up with the high intensity of many of her days without sacrificing health. She recently has downloaded A-Fit, and has set up her profile specifying all her idiosyncrasies.

4.1   Persona: Amaya

Amaya, 24, represents a demographic of important interest for the app. For scenario creation, she has the following goals:

- Mental health treatment for past and present scars and open issues.

- Keeping up with work and university.

- Eat a healthier and more balanced diet.

- Get back to exercising, become more active while developing some routines.

It is important to note, however, that not feeling pressured and finding the right rhythm to do the last bullet point is quintessential to achieving her first goal.

4.2   Scenario: A difficult morning

Mondays can be a challenge for everyone, but this concrete one is feeling specially uphill for Amaya. The night has been a restless one, and the disconnected yet too-intrusive thoughts about impossible different issues are mounting up just too hardly on her head. When the alarm sounds, and she sees the notification from A-Fit, she feels like not getting out of bed.

1. **Adaptative Profiling**: When she opens the app, the workout she once chose for her daily schedule is shown: an hour of running. She instead chooses "I don't feel like it". No penalty comes from this, and the app will instead ask if she feels like doing something else.

2. **Alternative Suggestions**: Amaya instead asks for a suggestion for something light for 15 minutes. Knowing her health background, the app proposes stretching in bed and, afterwards if she feels like it, a light yoga session.

3. **Flexible planning**: After Amaya accepts this suggestion, the app will automatically update the schedule, decreasing the overall fitness activity plans for the day while adapting the rest of the week's diet accordingly.

4. **Room for improvisation**: Later in the day, Amaya finds herself with her friends and some free time after an early-afternoon class is cancelled suddenly. They decide to join the judo club for a newbies training they are offering at campus, and they rock it! Afterwards, Amaya logs this sudden activity, for which A-Fit adapts again, suggesting a more caloric dinner and more hors of sleep this night.

4.3   Key Takeaways

1. A-Fit is a good fit for Amaya's mental health challenges, and makes her journey into physical wellbeing less intimidating.

2. The adaptative nature of the app ensure that a day-off will not make her quit all together, instead offering a path for recovery.

3. The tracking nature of the app also helps in future planning, and can offer both the app's algorithm and the user access to key data that can invaluably improve the journey towards wellbeing.

4. It is of utmost importance that the app manages to become a friendly reminder without it being neither too annoying nor too strict. It has to be a helping hand, for otherwise people like Amaya will easily drop out from any journey towards fitness.

5. The app is incredibly dependent on user data. If, due to laziness, privacy concerns, or other reasons, the user choses not to disclose enough of their background, the app may easily misdirect or not respond/suggest approvingly.

6. A-Fit is also a solution overly dependent on technology. The capacity of a computer to understand the physical and mental state of the user is something that cannot be easily overlooked. Similarly, the knowledge of a medical professional, with the added human connection factor, cannot be underrated. Disclaimers shall always be present, for important issues like mental health are nothing without nuance; something that an algorithm may not always take enough into account.

5 Reflections

Reflections: Elaborate your initial concept about the health or wellbeing application from the usability and user experience perspectives: Which aspects of usability are important and why? How does your design address UX goals? Compare the background readings and your own experiences on scenario-based design: e.g. In what kind of situations the scenario-based design approach is useful? What are the benefits of the approach?

From this exercise on Scenario-based design, it is clear that accessibility/learnability/clarity is to play a key role in usability. How easily a user can get into using the app, and how intuitively it can be used, so it becomes a helpful aide and not another system to battle with, is of utmost importance for the app's success. Similarly, top-notch flexibility, personalization of plans, and error handling must be built-in from the very beginning. If a suggested workout or dietary choice is out of place, substituting it and reporting an error should be so easy the user instantly forgets about it. The data bank with dietary options, workout plans, etc should also be as wide as possible as to cater to every possible need or impromptu activity the user choses to do.

The fact that the app has been envisioned from its very inception as a User-Based and User-Centred system is a key win in it addressing user experience goals. Its focus in creating a non-judgemental environment serve wonders in a scenario like the one described, and making a change of plans not only possible but a built-in feature that is as good as an option as any other is probably one of its biggest strengths. In my own experience, many fitness apps do focus too much in a very concrete profile who is used to strict working-out schedules and very restrictive dietary plans (which, far too often, can easily end up as serious eating disorders). Thus, by creating personas in scenarios other than the stereotypical white male who regularly works out, A-Fit has a very strong chance to contend with other fitness apps while appealing to a wider audience who would otherwise seldom consider even having such an application installed.

References

1. JACKO, Julie A. *Human Computer Interaction Handbook : Fundamentals, Evolving Technologies, and Emerging Applications, Third Edition*. Taylor & Francis Group, 2014.
2. COOPER, Alan; REIMANN, Robert; CRONIN, David; NOESSEL, Christopher. *About Face : The Essentials of Interaction Design*. John Wiley & Sons Incorporated, 2014.