



bari:

finding time for self-care
in a busy society

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ABSTRACT

Prior research substantiates the belief that busyness has become the symbol of status of our time. Along with that, it is appropriate to suggest that people feel busier and more time-pressured than ever before. Most of the time, time-pressure influences our health and lifestyle negatively and is widely known to induce stress, which could further cause more serious health conditions such as depression, dementia and Alzheimer's disease.

This thesis first looks at psychological science to find what are some shared stances on busyness in the academic world. It reviews recently developed digital applications that claim to help with time-pressure and work-related stress. It analyses thoroughly the behaviour of overworking and constructs three behavioural archetypes. It concludes the research by design principles.

Following these principles prompts the development of bari: a self-care application that encourages its users to be kinder to themselves. Bari is designed for busy people who often feel overwhelmed and time-pressured with or at work. It encourages and motivates to routinely make time for yourself and helps to spend that time in more balanced and fulfilling ways.

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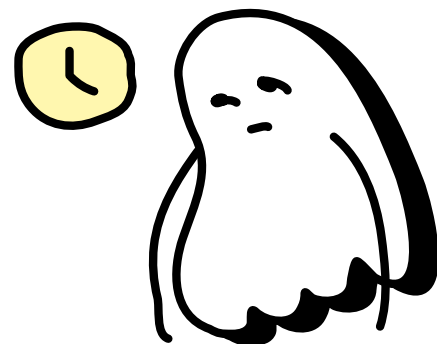
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BACKGROUND

In the Cambridge Dictionary, the noun ‘busyness’ is described as “a situation in which there are many things to do”. Coincidentally, the example given below the definition in the online dictionary, well describes the connection of this word to the thesis: **“Modern life has introduced incredible busyness”** (Cambridge University Press).

Indeed, modern life could be often described as incredibly busy. A number of authors have posited that lack of leisure time has become a symbol of status (Gershuny 2005, 312; Bellezza, Paharia, and Keinan 2017, 134), so it is not surprising to constantly see our peers being very busy. Bellezza, Paharia, and Keinan (2017, 119) suggest that busyness is aimed to be visible since being busy can lead others to believe that the person has a stock of habits, knowledge and personality traits that are desirable in a workplace.

But being incredibly busy, specifically time-pressured, has **negative consequences to our health and lifestyles**. In a design education discussion organised by Dezeen, participants highlighted burnout to be the biggest issue with their education and pointed that professors encourage students to sleep less to achieve more (Block 2019). Since overworking has become so ingrained in our work culture (Griffith 2019), dealing with it is a difficult, but important, problem to tackle. I am interested in finding out why the effects of busyness are so trivialised in our society and how could work-related stress be preventable or reduced as well as propose a solution that would support healthier ways of working.



PERSONAL INTEREST

The initial interest of this topic came to me during an Emotional Design course led by Stefan Hiienurm in the Estonian Academy of Arts, where we were asked to take an existing app and design it with a bigger effect on users’ emotions. Since I had never found a good time-planning application for personal use, I ended up making a mockup of a to-do/calendar application that was based on my own needs and lifestyle.

My choice of the application category raised an interesting discussion about how popular time-management applications (such as Google Calendar, Trello, Todoist, etc.) are effective to use at work, but are lacking in personal use features since they are developed to help in managing a high demand workflow. With that, there is a **lack of applications that are work-life centred**, which help to stay focused and productive without getting burned out or compensating with one’s own health.

This raised discussion made me curious about the existing applications that do contribute to slowing down the high demand lifestyle and which kind of emotional or behavioural design features they implement to mitigate or prevent work-related stress. Based on this interest, I aim to design an application that is dedicated to bring emphasis on well-being into busy people’s work culture. To achieve this goal, I am determined to find out:

- What are some common stances on busyness in the academic world?
- What are some recent digital applications that claim to prevent/reduce time-pressure and work-related stress?
Which of their features stand out to be the most effective?
- How might we help people to take better care of themselves?
- How might we help people to have fulfilling leisure time?

METHODOLOGY

The structure of this thesis (Figure 1) mostly follows the Double Diamond framework developed by the Design Council. It is a common design process with 4 stages: **Discover, Define, Develop and Deliver** (Design Council 2019). Due to my goal of designing for positive behavioural change, I have mixed this process with Behavioural Design methods.

Behaviour Design, Behavioural Design and Behaviour Change Design, which all mean the same thing, were born through the combination of different practises, mainly Behavioural science and user insights (Kelly 2019). **I swapped the 'Define' process with 'Diagnose'**, referenced from the BehaviourKit (Kelly, 2019), in order to emphasise that understanding the behaviour is of priority in this thesis.

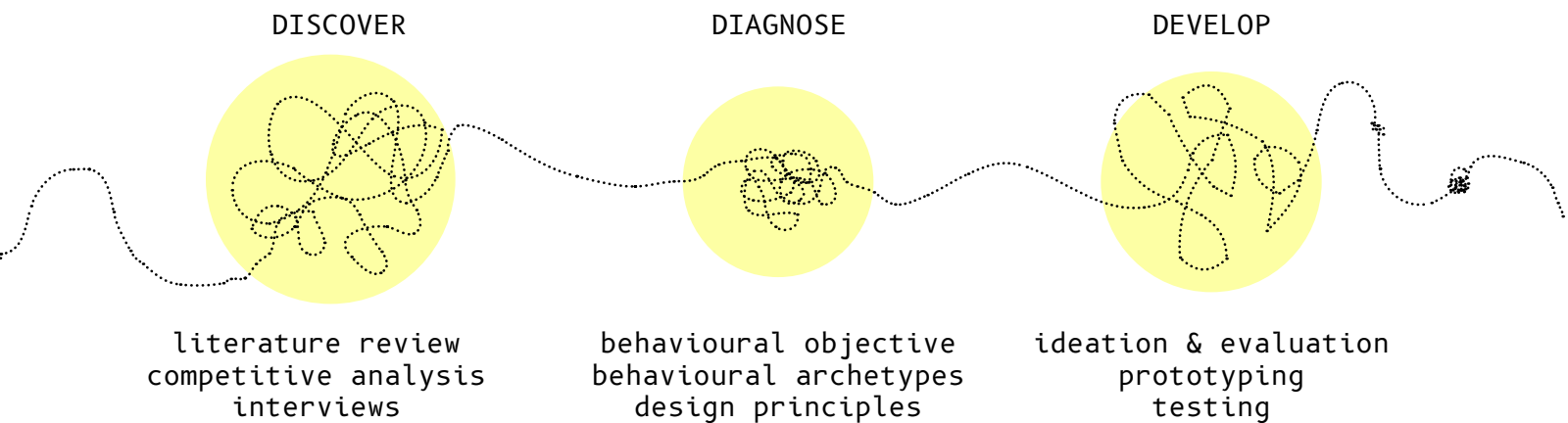


Figure 1. Structure of the thesis.

To Discover, I first start with a **literature review** about topics such as the perception of time and busyness; time and attention management; productivity; subjective well-being; work-life balance and behavioural design. The literature review helps to illustrate the scope of the topic as well as describe the problems and opportunity areas. Since time topics are usually ambiguous, I start with a general overview and move into describing some recent theories on time-pressure.

METHODOLOGY

The literature is chosen according to its impactfulness (looking at the number of how much the articles are cited), relevance and novelty of the information. The review focuses on finding what are the most commonly used strategies to reduce or prevent work-related stress.

I proceed to analyse present digital developments, otherwise called doing a **Competitive Analysis**. Prior to the analysis, I review twenty seven¹ different applications and products that are advertised to help with stress and increase well-being in their product pages. Six of the applications have the most innovative product features and are filtered into the autoethnographic analysis. According to Goodman, Kuniavsky, and Moed (2012, 75), Competitive Research can be conducted at any point in the product development and doing it in the early phases can help to get answers to design directions. Thus, the competitive analysis helps me to find out what kind of trends come up with designing work-life management products and based on the most effective features, further narrow down my direction.

To Discover more, I have chosen to interview five people, of whom four depend on time management products daily and one extreme user, who never uses any tools. The purpose of interviewing people is to find out who I am designing for and understand their behaviours, needs and motivations. I have chosen to focus on people who are either studying or working (or doing both), because they have a busy lifestyle and the general pain points that I am attempting to solve. All of the interviews are semi-structured, meaning that I have a set of questions for everyone (**see questions in Appendix**), but leave room for additional questions that can be influenced by the flow of the interview.

¹Applications viewed in the preliminary round: Reflectly, Youper, Sayana, stoic., Insight Timer, Wild Journey, Endel, Flora, Jour, The Happiness Planner, Sanity & Self, Fabulous, Sanvello, Reflect, Perspective, Being Me, Tack, Last Day Question, Habit, Cove, 1 Second Everyday, Forest, Flipd, Ivy, Headspace, Aloe Bud, GrowApp

METHODOLOGY

To help elicit accurate feelings and detailed answers, I am asking the interviewees to bring or have the tools they use to manage their time with them (for example a physical bullet journal or a time planning app). As Goodman, Kuniavsky and Moed suggest, this kind of dialogic technique is particularly helpful when a researcher wants to better understand what kind of feelings and perceptions one has about certain aspects of their lives (Goodman, Kuniavsky, and Moed 2012, 180).

Diving into the Diagnose phase, according to the BehaviourKit (Kelly 2019), it is useful to create behavioural archetypes to understand the user. The archetypes can help differentiate groups of people with similar behaviour patterns. To form the archetypes and understand their behaviour, I focus on finding out the identity of the user, their emotions and attitudes, needs, intentions, motivations, self-efficacy and cognitive biases. The behaviour is understood by analysing how other people and the work environment influences the person. This structure is a design framework called the Drive Grid and is developed by Lauren Kelly (Kelly, 2018). Following the analysis, I conclude the Diagnose phase with a set of design principles and according “How Might We” questions (Hasso Plattner Institute of Design at Stanford University) to prompt ideation.

Before going to the **Develop phase**, I choose the main archetypes and “How Might We” questions to focus on. The first ideation round is for coming up with many different ideas, which I then filter and choose my favourites from. I proceed with creating sketches for the two favourite ideas and evaluating them further with the design principles. I choose the final idea, which covers most of the design principles and iterate further to create low fidelity wireframes. Finally, I test the wireframes with the target user and develop a high fidelity prototype using Figma.

THE TIME BIND EXPERIENCE

Goodin, Rice, Bittman and Saunders (2005, 45) contend that perceived lack of time can be deceiving. In their study, Goodin and colleagues compared people’s perceived free time and the discretionary time². The results demonstrated that time-pressure would rather be a result of choice than a true necessity of time. In a broader context, the alleged modern busyness is said to be a consequence of people putting a higher economic value on time (DeVoe and Pfeffer 2011, 674). In a study conducted by DeVoe and Pfeffer, multiple experiments showed that feelings of time pressure increase when a person has a higher perceived value of time. In the words of DeVoe and Pfeffer:

If time pressure is directly related to the higher economic value of time, it may be that rising income over the past several decades within many countries—a phenomenon that makes time appear more valuable—can help explain the so-called modern time bind experience. (DeVoe and Pfeffer 2011, 675)

The presence of modern time bind experience can suggest that people nowadays have **higher economic values of time** and their focus relies on money over time. Although having economic income is one of four determinants of happiness among Europeans (Böhnke 2005, 9), excessive focus on money decreases subjective well-being³ (Mogilner, Whillans and Norton 2018, 4). Money-focused people could be less prone to help others with their time (f.e. voluntary work) and be social, both of which are considered to be activities that increase subjective well-being (Mogilner, Whillans and Norton 2018, 3, 4, 7). In addition, when people put a price on their time, they are more likely to show impatient behaviour (DeVoe and Pfeffer 2011, 672) and in the light of time pressure it can result in poorer completion of tasks or even giving up on the tasks (DeVoe and Pfeffer 2011, 674).

²**Discretionary time** - the time available to people after necessary activities such as personal care, paid work and unpaid household labour have been deducted (Goodin, Rice, Bittman and Saunders 2005, 54)

³**Subjective well-being** - the scientific denotation of the ‘happy or good life’ developed by Ed Diener, which consists of an affective component (hedonic balance) and a cognitive component (life satisfaction) (Diener 1984)

TOO BUSY TO BE HEALTHY

Being too busy influences lifestyle choices regarding our health. In fact, lack of time is widely listed as a major barrier to lifestyle choices such as healthy eating and regular exercise (Silliman, Rodas-Fortier and Neyman 2004, 10; Reichert, Barros, Domingues and Hallal 2007, 516).

More importantly, heavy workload and time pressure is often a **source of stress** (Roxburgh 2004, 126; Skaalvik and Skaalvik 2015; Wilms and Oberfeld 2018) and influences our overall emotional well-being negatively (Gärling, Gamble, Fors and Hjerm 2016, 1789). Due to increased job demands, many people are finding it difficult to keep thoughts of work away during the off-job time (Sonnentag, Binnewies and Mojza 2010, 965). Failure to psychologically detach from work during off-job time can increase psychosomatic complaints and culminate with **long-term emotional exhaustion** (Sonnentag, Binnewies and Mojza 2010, 971) and constantly feeling time poor could even lead to depression (Roxburgh 2004, 126).

At the time, when the stress is short-term, people do not usually think about the consequences. Sadly, higher work-related stress in midlife can increase the risk of mild cognitive impairment, dementia as well as Alzheimer's disease later in life (Sindi, Hagman, Håkansson, Kulmala, Nilsen, Kåreholt, Soininen, Solomon and Kivipelto 2016, 1051). It is astonishing to me that these possible consequences of work-related stress are often trivialised in our society and not dealt with. **Could there be ways that could help prevent work-related stress? Should time pressure be avoided?**

BATTLING STRESS & LOSS OF CONTROL

Ironically, the damaging consequences of busyness can be combated by being busy (Wilcox, Laran, Stephen and Zubcsek 2016, 371). In a study conducted by Wilcox, Laran, Stephen and Zubcsek, it was found that being busy, when one has missed a deadline, **can increase motivation** and reduce task completion time. So, when a person is time-pressured and misses a deadline, the best thing to do is to stay or start being busy. Being engaged in activities to busy people is perceived as an efficient way of managing and using time. And this perception has a power to make negative consequences of missing a deadline less severe, enabling room for increased motivation (Wilcox, Laran, Stephen and Zubcsek 2016, 381).

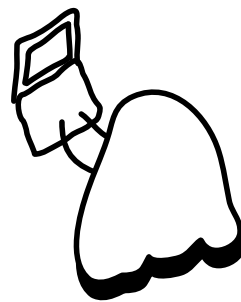
Ultimately, being busy is helpful when it is balanced against people's personal perceptions of what being busy or overworked means to them (Wilcox, Laran, Stephen and Zubcsek 2016, 382). There is no amount of busyness that is optimally good for everyone. But there are indications on how much work and leisure time could be too much. With recommendations on which practises could lead to a more balanced lifestyle (Zuzanek and Zuzanek 2015, 854).

Another important factor in battling detrimental effects of time pressure is **having control of time**. For example, people who choose to work overtime hours voluntarily do not generally get fatigued from it and are satisfied with their work and this applies even when they do not get rewards from overworking. On the contrary, people who have to work overtime involuntarily report higher fatigue rates and lower work satisfaction. In this case, rewards have little influence, because having control over time is of the utmost importance. It should be noted that people who can choose voluntary overtime hours are generally working jobs with higher wages and better work environments with more autonomy compared to those who are working overtime involuntarily. (Beckers, van der Linden, Smulders, Kompier, Taris and Geurts 2008, 44)

BATTLING STRESS & LOSS OF CONTROL

Prior research generally confirms that gaining control of time, work satisfaction and decreased stress levels could be achieved with **time management**⁴ (Häfner, Stock, Oberst, 2014, 81). Behaviours such as **goal setting and prioritisation** have the most influence in keeping control of time and maintaining well-being levels (Donnelly, Kovar, Fisher 2019, 56; Torres, Duarte, Conceição 2019, 380).

Few studies have found the effect of time management behaviours on performance (Adams and Blair 2019, 9; Donnelly, Kovar, Fisher 2019, 56; Torres, Duarte, Conceição 2019, 372). Parke, Weinhardt, Brodsky, Tangirala and DeVoe (2018, 29) suggest that the reason lies in insufficient research on specific and different types of time management. In their study, the aforementioned scholars find that people who plan daily do achieve an increase in work engagement and performance. However, this relationship between planning and performance is greatly influenced by **work interruptions**, which, if there are many of them, can significantly lower the effect of time management (Parke, Weinhardt, Brodsky, Tangirala and DeVoe 2018, 11).



⁴A definition suggested by Claessens et al 2007, 262 views **time management** as “behaviours that aim at achieving an effective use of time while performing certain goal-directed activities”. For example, goal-setting and making to-do-lists are time management behaviours.

FINDING BALANCE IN TIME-USE

Interestingly enough, feeling time-pressured, in some cases, can contribute to certain aspects of happiness. Specifically, if it is viewed as a tool in the context of challenging one’s self in the workplace and raising organisation-based self-esteem (Widmer, Semmer, Kälin, Jacobshagen and Meier 2012, 422).

Thus, a major factor that shifts the influence of busyness is **whether the person is satisfied with their time-use** and not necessarily how many hours they have spent on work (Roberts 2007, 347). In fact, in the European Quality of Life Survey (Böhnke, 2005, 9), time-use was listed as one of the four main determinants of life satisfaction.

For example, being unemployed has a negative effect on life satisfaction because it elicits feelings of depression, uselessness, lack of self-confidence and worthlessness (Wolfers 2003, 24), especially in individualistic countries (Mikucka 2014, 686). Knabe, Rätzl, Schöb and Weimann have also found, that, although using increased leisure time in more enjoyable ways could mitigate the feelings of sadness amongst unemployed people, people would still rather be employed and have longer work hours (and be less happy in the present) than be unemployed and have longer and more enjoyable leisure time (Knabe, Rätzl, Schöb and Weimann 2010, 883-885).

Knabe and colleagues suggest that this could mean that unemployed people often do not adapt their aspirations to their new life circumstances. Moreover, being happy with present life activities does not always result in higher subjective well-being levels and although lack of time is generally associated with lower levels of life satisfaction, having more time and more happiness does not immediately translate to increased subjective well-being (Zuzanek and Zuzanek 2015, 854; Sharif, Mogilner and Hershfield 2018,14).

FINDING BALANCE IN TIME-USE

These examples show that **thinking about time** and finding the most valuable ways to spend time is just as important, if not more important, as how we actually spend time (Lopez and Snyder 2011, 190). Boniwell and Osin (2015, 96) suggest that the problem of the time bind experience has to do with finding balance in time-use and they reference Elliot (1997) that this could be achieved by **taking actions on “the right thing”**.

I believe it is common to see nowadays a lot of content on the internet being focused towards sharing how to be more productive and efficient. It is encouraged to try out many tools and read self-help content (Image 1) to conquer procrastination and seek growth for more - be bigger, be richer and so on. I believe that for people who are constantly time-pressured and overworked, concentrating on just raising productivity could make the person miss out on possible root causes of unproductiveness. If someone’s sole goal is to “be productive”, then the whole meaning behind what they are actually doing or why they are doing could be easily lost (Klamer 2017, 12; Grant 2019). Not being productive is a consequence, a possible consequence of being pressured by time (Roxburgh 2004, 117) as well as feeling some kind of unhappiness (Oswald, Proto and Sgroi 2015, 803). Perhaps, when the busy person feels overworked, it could be plausible to slow down and ask themselves **what meaning their work brings to their life**.

FINDING BALANCE IN TIME-USE

For example, Sandstrom and Dunn found that sometimes it could pay to slow down on efficiency. They investigated (2014, 437) that people who make an effort to smile or talk with the barista when ordering a coffee, experience more positive affect than people who are always efficient with their time. So it is possible that a person who is always seeking efficiency could be missing out on small moments that can lead to feeling happier in everyday life.

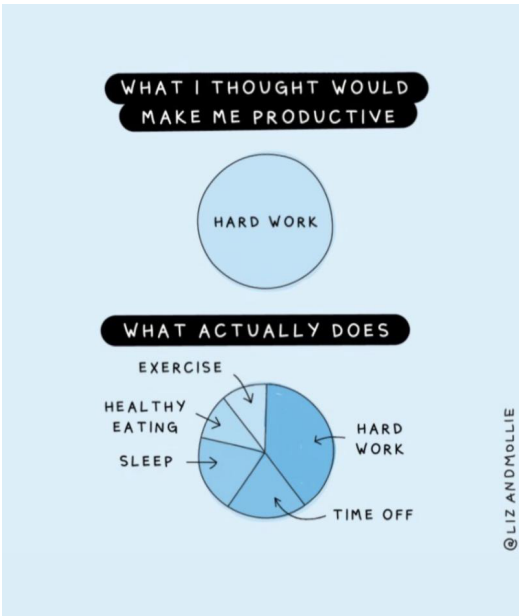
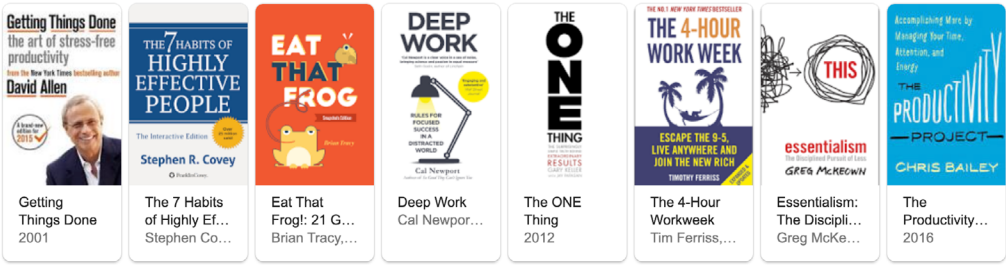


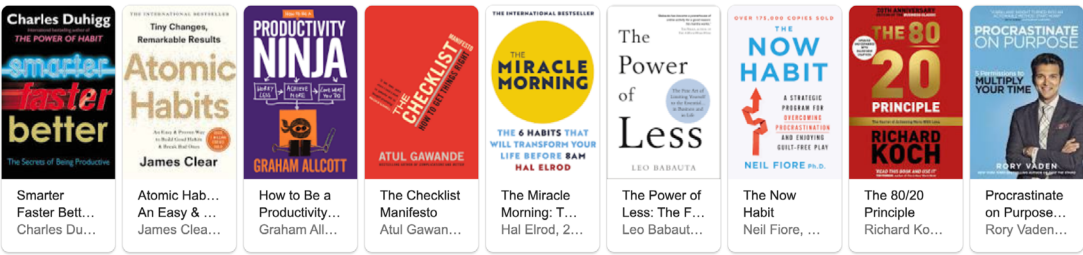
Figure 2. Illustration by @lizandmollie from Twitter about productivity.

The relations between well-being and productivity have not been studied by many scholars, but the few studies that exist, do indicate increased productivity from positive affect, a part of subjective well-being (Oswald, Proto and Sgroi 2015, 807). In contrast, topics about productivity and its wholeness have been gaining popularity in the Internet culture (see Figure 2 for an example) amongst illustrators, authors and designers such as Liz Fosslien and Molly West Duffy (Fosslien and Duffy 2018), Gretchen Rubin, Melissa Steginus, Jake Knapp and many more.

Books / Productivity



Books / Productivity



Books / Productivity



Image 1. Google search for productivity books reveals an endless stream of options

AUTOETHNOGRAPHIC REVIEW

There is definitely a good variety of applications developed in the recent years in the categories of Productivity and Health. I reviewed six applications (see below for application descriptions*) autoethnographically, meaning that I personally used them for a week and made notes in a diary about the different features and their effectiveness. I chose to do an autoethnographic analysis because it allowed me to **thoroughly reflect and compare** (Ellis and Adams 2014, 257) the applications as well as be mindful of their impact on my emotions and behaviour.

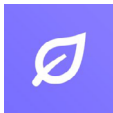
I chose applications that I personally thought would be the most effective in finding a better work-life balance. Additionally, I looked at what the developers had promised the application would help with. All of them had some sort of purpose to improve focus, reduce stress, increase mindfulness, etc. In result, I gathered two features that had the biggest influence on changing my behaviour: **Community experience and Self-care check-ins**. The learning points from these features were summarised into the project’s design principles.



Forest is an app that helps the user stay focused on the important things in life by planting trees that can only survive if the user focuses on their work. Leaving the app kills the tree but staying focused daily results in a forest.



Flipd is an app that helps the user to spend their time better. “Whether it is to prep for an exam or examine thoughts, Flipd helps the user celebrate all of life’s Mindful Moments, big and small.”



Ivy is a fun and stress-free to-do app that categorises tasks into “Self” “Life” and “Focus”. Ivy has an option to share your to-do’s with a community to gain encouragement for the tasks.



GrowApp is an AI driven self-care assistant that recommends habits and activities that could help balance the user’s life and learn new things.



Headspace is a wellness app that offers guided meditations that help with managing stress and anxiety, sleep, productivity, exercise and physical health.



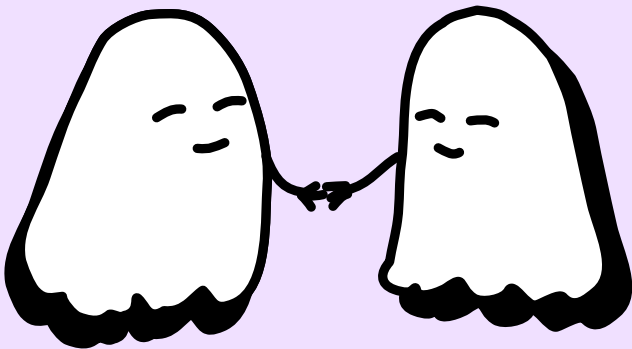
“Aloe Bud is an all-in-one, self-care pocket companion. It gently brings awareness to self-care activities, using encouraging push notifications, rather than guilt or shame. The primary question is: What could you use more of today?”

*Product descriptions of Forest, Ivy, Headspace and GrowApp are referenced from their official websites and/or Appstore descriptions. Flipd’s and Aloe Bud’s descriptions are cited from the official product websites (<http://www.flipdapp.co/> and <https://aloebud.com/about.html>)

AUTOETHNOGRAPHIC REVIEW

/ COMMUNITY EXPERIENCE

In a real life situation, when I see someone else working hard and succeeding in their work, it gives me an instant boost to start doing my own work. Similarly, when I am working together with other people, it increases my self efficacy levels as well as reassures that I am doing something good because I am working towards a similar goal with others. In short, there is just something very magical and instantly motivating in the feeling of shared experiences. I found that emulating this experience in the digital world is becoming very popular amongst Productivity applications. It is not necessarily a competitive moment, but rather an encouraging strategy. Specifically, I am talking about **Forest’s “Plant together” mode, Flipd’s “Unplug or study live”, Ivy’s Community tab and Headspace’s “Everybody Headspace”**.



AUTOETHNOGRAPHIC REVIEW

Forest’s “Plant together” mode (Image 2) allows users to focus on important tasks together with their friends in a limited timespace. Similar to the default mode, leaving the app thus losing your focus causes the tree to wither. However, in the “Plant together” mode, the responsibility to be focused is higher because the withering of one person’s tree causes the withering of everyone else’s trees.

My experience trying this feature out resulted in two long productive work sessions. While I am writing this, the world is actually in unprecedented times due to the spread of a pandemic. Consequently, working from home is the new reality for a longer period of time and it has introduced new challenges to my work life, which have influenced my attention greatly. After trying out Forest with my husband, I found that this coworking feature helped to be more mindful of and focused on our shared responsibility of contributing to our family, because we quite literally had a shared responsibility to keep the tree (the timer) from dying. **And even though it is a simple forest we are planting, in a way, it symbolised a bigger meaning for both of us.**

note: HOW MIGHT WE EXPRESS TIME METAPHORICALLY?

Although overall the influence was good, I found myself not using it very often because of how inconveniently the phone plays a role when I want to focus on work. Since I use a laptop for most of my work, having the timer on the phone was slightly distracting and I assume it would work better as a browser extension. Moreover, it is required to have an account in order to have a shared timer or join a shared room and because the application is not widely known, the process of having all of your friends create accounts for just that feature is quite tedious.

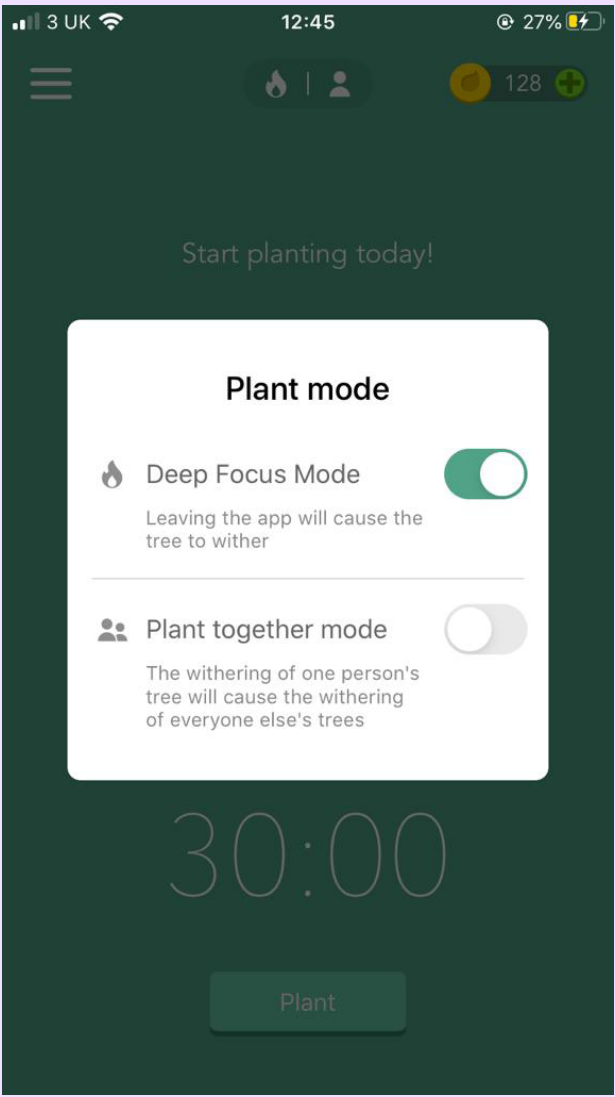


Image 2. Community experience in Forest (screenshot).

AUTOETHNOGRAPHIC REVIEW

The next collective influence feature I reviewed was **Ivy's Community tab** (Image 3). In the Ivy official website (<https://getivy.co/>), the application is described as a “fun and stress-free way to get things done” and lists one of its main features, **the Community tab**, as a way to get encouraged by others. Ivy is a “**positive**” to-do app and making your tasks visible gives an opportunity for strangers to react to them. You can also encourage others by either sending a heart or a like or commenting on the task. It is intentionally made that only the owner can see the amount of reactions the task gets in order to minimise the feelings of competition and maximise giving support. The purpose of Community is to anonymously celebrate the collective effort to complete many tasks in a day.

I used Ivy mostly because I was interested how the Community tab would affect me in a longer period of time. Unfortunately, although I used the application consistently for a week and encouraged others in the Community almost everyday, I never received encouragement to my own tasks, which I thought could be a consequence of the application not having many users yet. I also noticed that most of the users were younger school students and that made me feel old, because their tasks were not relatable to my life. This reminded me that **a community effect can only be achieved if there is a sense of belongingness**.

note: IF USING COMMUNITY INFLUENCE STRATEGICALLY, HOW MIGHT WE
CREATE A SENSE OF BELONGINGNESS FOR DIFFERENT TYPES OF COMMUNITIES?

Regardless of the absence of belongingness, it did give me a quick feel-good moment when I encouraged others, because it felt like the encouragement could have made their day better.

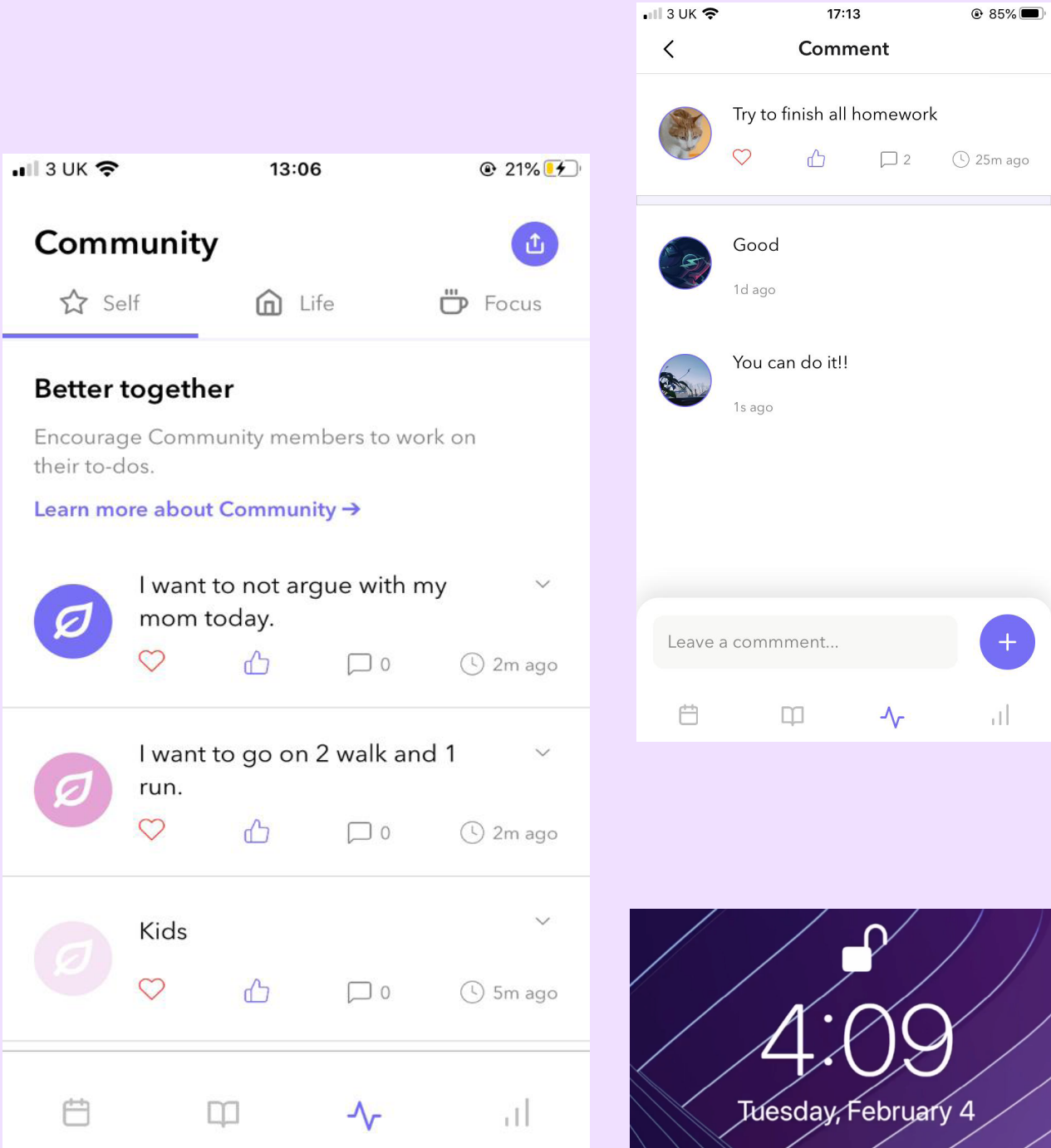


Image 3. Screenshots of Ivy's community experience. Community tab and enoucaregement interactions.

AUTOETHNOGRAPHIC REVIEW

When a user sends encouragement in Ivy, the receiver gets it as a notification. **Headspace** has a similar way of sending encouragement and these are called “**mindful messages**” (Image 4), which users can send to their friends. While I did not receive encouragement in Ivy, I did get a couple of encouragement messages from a friend through Headspace and it felt great in the moment, but apart from making me smile it did not have a motivating effect. However, since it is just a small feature in Headspace, it does contribute well to the whole of the app.

Headspace has another more important way of motivating people and it is a live section on the homepage called **Everybody Headspace** (Image 5). It invites people to meditate together at the same time by either showing how many people are currently meditating or waiting to meditate in the next session. Personally, I was really intrigued and immediately joined in. The “waiting room” is also a good addition, since it makes the experience more authentic to a real-life group meditation. I did however find that there was **a lack of visual representation of the community experience**.

note: HOW MIGHT WE DESIGN DIGITAL COMMUNITY EXPERIENCES
TO BE MORE VISUALLY IMPACTFUL?

I could see the little avatars and the number of people, but I kept imagining what I could have added to make the experience more fun and authentic. Overall, I did enjoy this feature and since I often forget to use new applications regularly, I was surprised to feel anticipated and motivated to keep coming back to the group meditations without any reminders.

Flipd has a similar feature, which is situated under the **Mindful Moments** section and is called **Flipd live**. There is an option to unplug or study with others (Image 6). In Flipd, the community effect was even less visually represented, which, again, left me wondering what I could do differently. What I did like, was the option to choose a tag to describe the action. Then again, just having it as a sentence (Time spent on ...) was dull. Compared to Everybody Headspace, I thought the Flipd Live was less interesting.

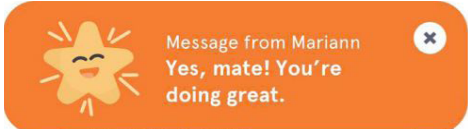


Image 4. Encouragement message from a friend through Headspace (screenshot).

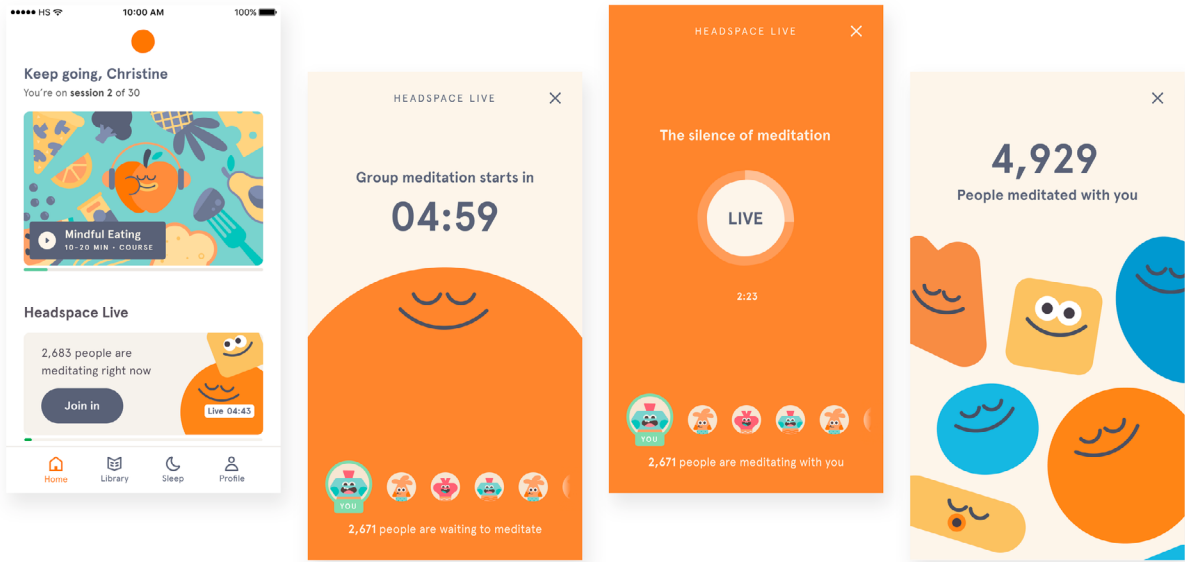


Image 5. Screenshots of Everybody Headspace from Christine Cha's portfolio page (<https://christinecha.cc/>)

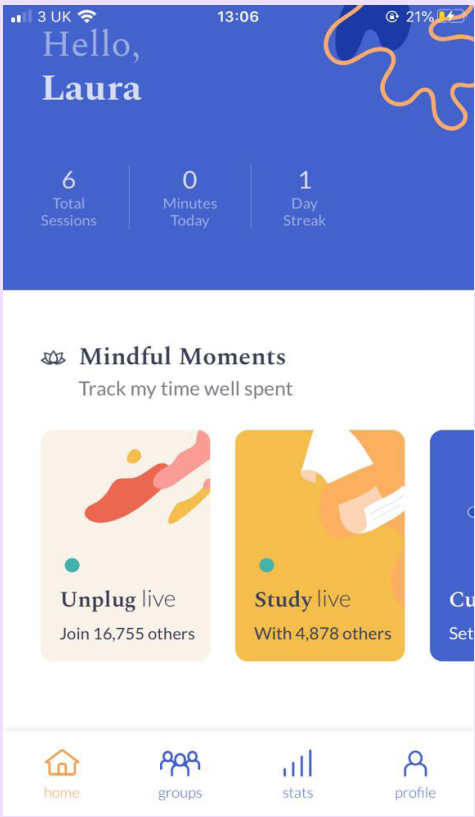
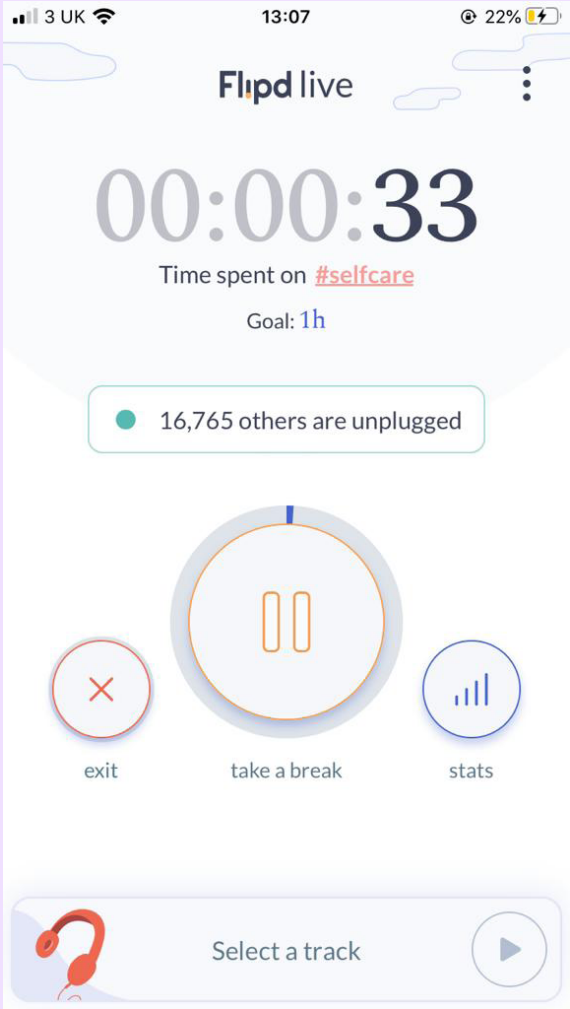


Image 6. Flipd's community experience, Flipd live (screenshots)



AUTOETHNOGRAPHIC REVIEW

/ SELF-CARE CHECK-INS

What I liked slightly more about Flipd was the **Wellness Schedule** (Image 7) and particularly I liked the idea of this feature - **to make time for wellness**. But the execution was not impactful. This feature is supposed to nudge the user to create new wellness habits, but there were not many options provided which, I found, limited my experience. I did not know immediately what new activities I should incorporate in my life so it would have been more interesting to see suggested activities.

note: HOW MIGHT WE ENCOURAGE THE USER TO CHOOSE NEW WELLNESS ACTIVITIES?

In addition, I assume that if I would have been guided to think about certain activities, then I would have been more motivated to take them on, so there was a lack of education about the activities. Why is it good to spend an hour offline everyday? Do I not do it anyway?

In contrast, **GrowApp** had a thoroughly developed selfcare reminding feature (Image 8, on the left). It had many suggested options as well as reasons why I should try them. They also described how to achieve the desired action, which made me feel that they **cared about me**. In addition, I liked the option to sync the reminders with my calendar, if I wanted to.

GrowApp has also programs that are built as a journey (Image 8, on the right) rather than choosing random activities to try. The program starts with choosing what you want to incorporate in your life, for example “Improve health and mood”, “Dive into the world of art” or “Stay organized”, and only then, actions are suggested. I tried out the “Improve health and mood” program, which made me feel better in the action moments, but did not have a lasting effect on my health or mood.

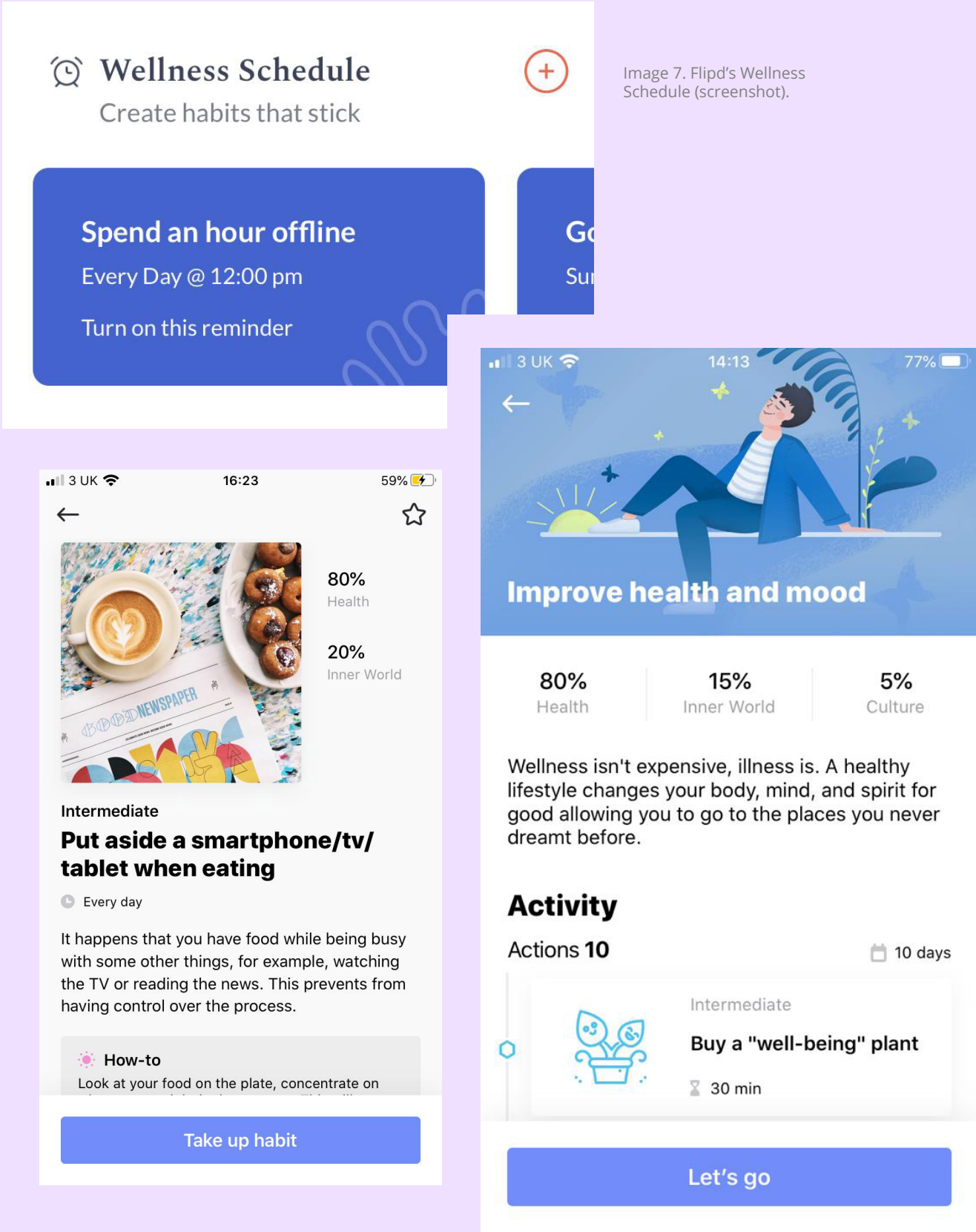


Image 8. On the right - GrowApp's program page. On the left - GrowApp's recommended activity feature.

AUTOETHNOGRAPHIC REVIEW

Even though the structure of the journey was well visualised, the actual experience of taking the journey was confusing and at times even frustrating. Mainly, I could not understand why I had to do the activities in the journey strictly in the order that it was given in, especially since I had to “plan” the individual activities into the Home tab. It was frustrating because I could not delete activities in the journey, which I was not able to or did not want to complete and because of those few specific activities, it felt like I failed the whole program. While Flipd’s Wellness Schedule was too broad, GrowApp’s felt too curated and rigid, which leads me to believe that a good self-care check-in feature should give enough structure for the person to feel interested, but leave autonomy in choosing the activities.

A good example as well as my favourite example of a self-care feature is the whole application of **Aloe Bud** (Image 9). Compared to GrowApp, it had a much better flow of recommending activities to do and checking them in later. In AloeBud, users can select from the list of **essential self-care activities** the ones they feel like they would want to be reminded of throughout the day. There is also an option to not get the reminders and just check-in on them whenever the user wants. I prefer the latter and as with Headspace - did not even need reminders to remember to use the application.

The simplicity of use and suggested activities, short descriptions and fun aesthetics made me excited to check-in on myself. What I liked the most was the grid view of all my self-care activities - it felt like my own little well-being box. Being impressed by this application, I noted that when building self-care features it is important to create a feeling of ownership. I think what describes the best this notion is a quote from Aloe-Bud’s official website (<https://aloebud.com/about.html>): “Aloe Bud sends you helpful reminders from yourself, to yourself”

note: HOW MIGHT WE MAKE TIME-USE RECOMMENDATIONS WITHOUT LOOSING THE FEELING OF AUTONOMY FOR THE USER?

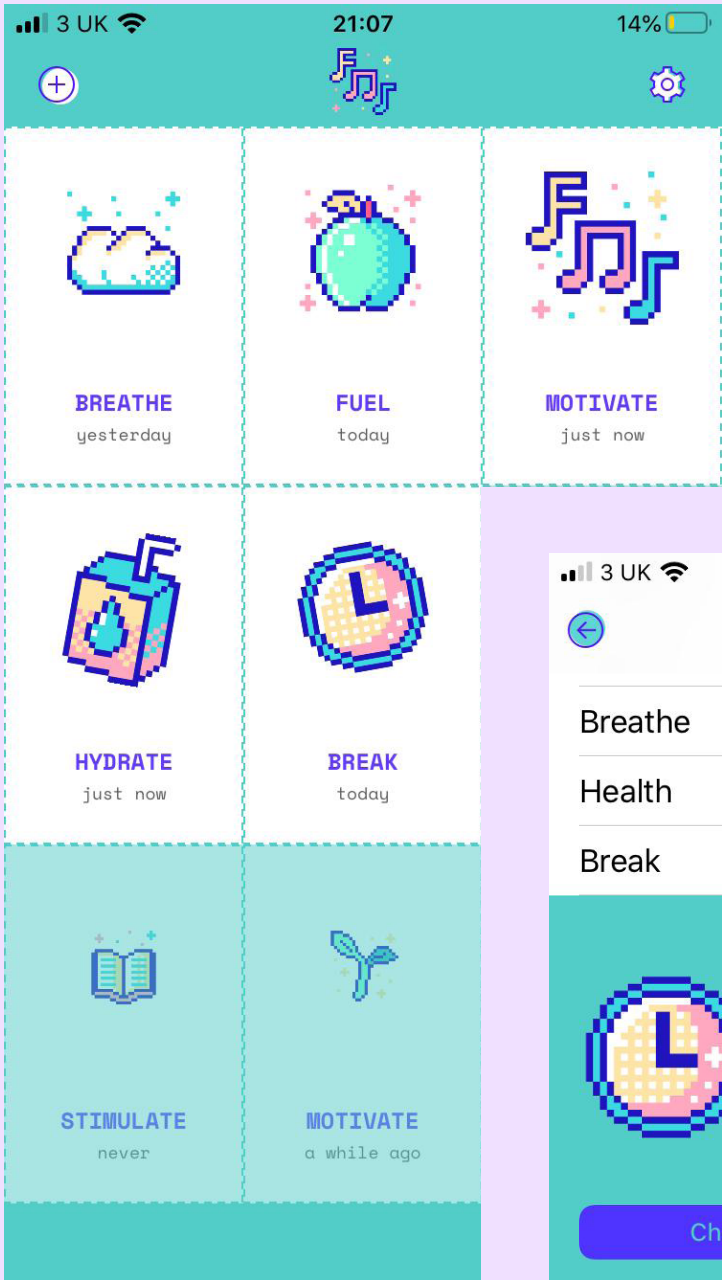
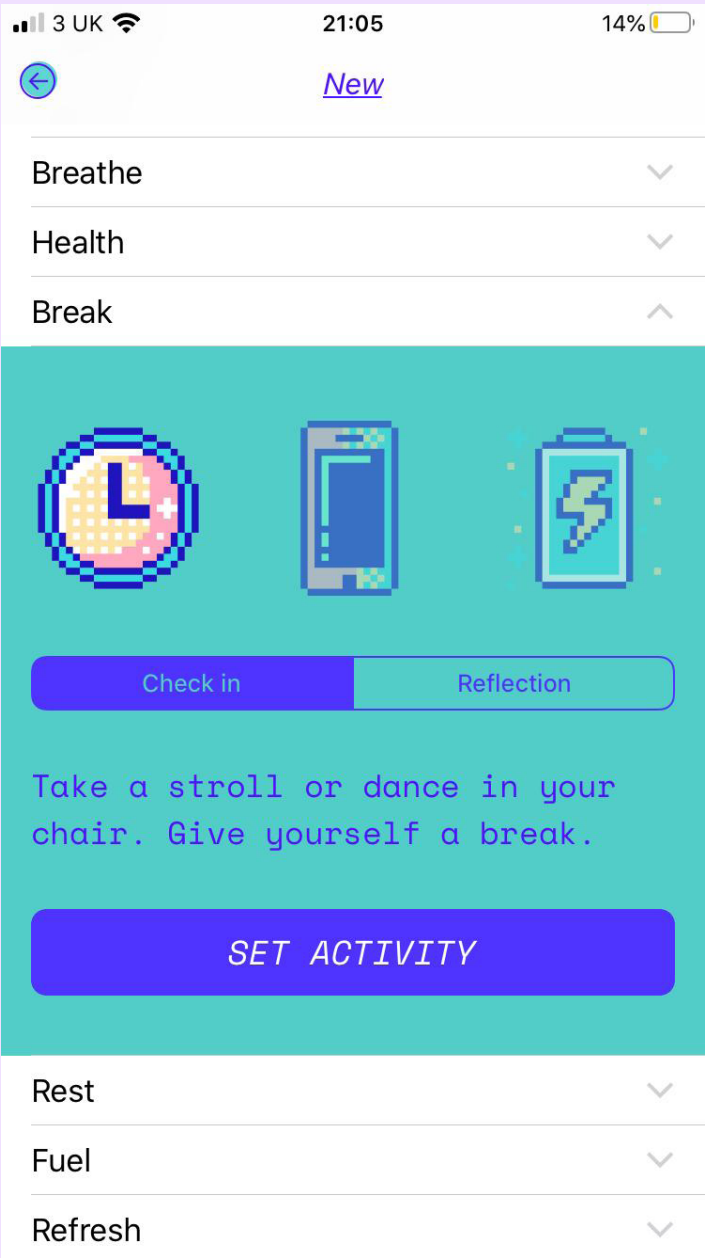


Image 9. AloeBud. On the left - main view. On the right - list of activities to pick to the main view.



INTERVIEWS

Before starting with the interviews, I created the **Behavioural Objective** to be able to measure the impact of my work once the concept is ready. The behavioural objective is an important anchor of the main goals and is updated throughout the design process.

behavioural objective: PEOPLE SHOULD INCREASE SELF-CARE ACTIVITIES SUCH AS GETTING ENOUGH SLEEP, EATING HEALTHIER MEALS, ETC. WHEN THEY GET OVERWORKED

The aim of the interviews was to find out who is the modern busy person and understand the behaviours that construct their busyness. Based on the literature review, I chose to focus on finding out about actions that contribute most to busyness - overworking and not making up time for resting. Related actions that also influenced the questions of the interviews were: procrastinating; not getting things done on time; getting distracted; stressing; not taking any breaks; not resting. I transcribed the interviews and transferred them into a spreadsheet to start synthesising.



Image 10. Synthesis of interviews using the Drive grid - home wall version.

INTERVIEWS

I used a **blank wall** in my apartment (Image 10) and **The Drive grid** (Kelly, 2018) to synthesise interviews. The Drive grid’s **“Me” section** focuses on forming the identity of the user, pointing out their emotions and attitudes, needs, intentions, motivations, self-efficacy and cognitive biases. **“We” section** is for finding out what other people in the user’s lives are doing and how they influence the users. The **“Oversee” section** takes into account all of what surrounds the user - the environment, where the behaviours are taking place; rules and laws; structural barriers and other artefacts (Kelly, 2018). The synthesis was also transferred into the digital space using Miro in order to connect different notes with each other using colored lines (Image 11).

The grid of the interviews was then formulated into **behavioural archetypes**, which were later used in the ideation process. In addition to the interviews, findings from the literature review (specifically time-use and attitude towards money) were used to complement the archetypes.

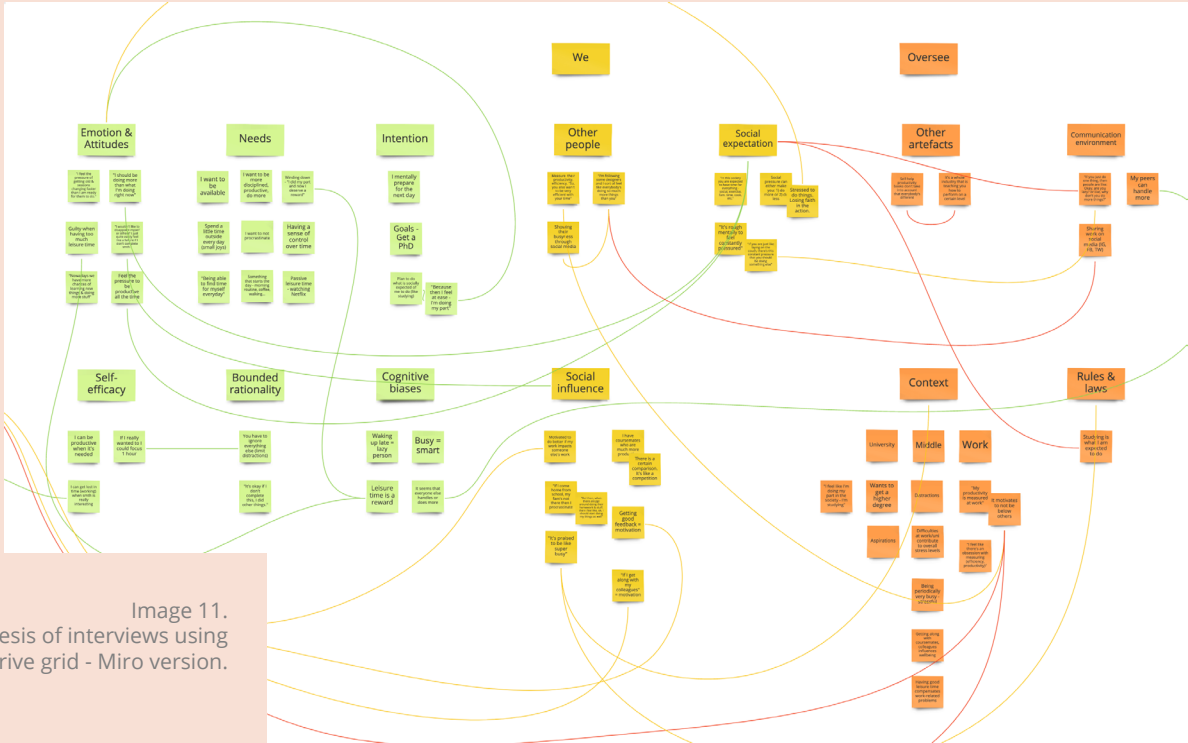


Image 11. Synthesis of interviews using the Drive grid - Miro version.

BEHAVIOURAL ARCHETYPES

	The Chronic Post-poner
	"Time goes faster than you'd imagine"
 Diagnosis	Feels overworked / time-pressured
Time-use	Imbalanced (leisure time > work time)
Work personality	Takes on many tasks and commitments; Procrastinates until the last minute, barely gets things done in time
Leisure time personality	Frequently feels guilty over leisure time, feels it is undeserved; Constant guilt hinders resting during leisure time; Desperately wants to rest, always feels tired; easily distracted
Attitude towards money	Has high economic value of time; is not satisfied financially
Goals & values	Strongly influenced by social and cultural norms, the work environment, social media and other people; has many goals unattained
Motivation	Driven by the involvement of other people; getting good feedback

BEHAVIOURAL ARCHETYPES

The Slow-lifer	The Workaholic
"Time is long & mysterious"	"There is never enough time"
Does not feel overworked / time-pressured	Feels overworked / time-pressured
Balanced	Imbalanced (leisure time < work time)
Calculates which tasks to take to keep time-use balance; Sometimes procrastinates, but gets things done	Takes on many tasks and commitments; Task-focused / focused on getting things done; Rarely procrastinates
Does not feel guilty over leisure time, feels it is well-deserved	Desperately wants to work; Rarely takes breaks from work "Taking a break feels like wasting time"
Time-focused rather than money-focused; satisfied financially	Has high economic value of time; is not satisfied financially
Adapts goals and values when faced with big life changes; Consciously thinks about "doing the right thing"	Strongly influenced by social and cultural norms, the work environment, social media and other people; has the "big" goals unattained
Driven by learning something new; doing good for others	Driven by future; personal feelings of accomplishment; competition

THE BEHAVIOURAL ARCHETYPES

The Chronic Post-poner needs to be socially influenced by seeing others being busy, either on social media or in real life, to start working. The reason why The Chronic Post-poner feels over-worked and time-pressured lies in the imbalance between work effort and personal aspirations. The Chronic Post-poner’s failure to work is induced by social expectations and norms, which s/he is not comfortable with. More specifically, it can be:

- age expectations - “All of my peers are working already and I’m still studying”,
- work expectations - “My productivity is measured at work. I don’t want to be below others”,
- general social norms - “It is rough mentally to feel constantly pressured to fill time with work”.

The Workaholic is also influenced by others to start working, but not by seeing them working in the present, but by seeing others achieve more than her/him. The Workaholic is mostly focused on achieving something economically and taking a break is a wasted time to work on the big goals. Since The Workaholic’s mind is always in the future, it is difficult for her/him to feel gratification from present and smaller achievements, which makes them easily get overworked and stressed. The Workaholic needs to be reminded externally by other people that it is needed to take breaks to feel better.

The Slow-lifer does not feel overworked or time-pressured due to her/his balanced time-use. The Slow-lifer dedicates time to adapt their goals and values to keep the balance at all times. The Slow-lifer is highly introspective, s/he has learned what times of the days are the best for working and which times are good for leisure. The Slow-lifer takes good care of themselves, creates joyful routines and constantly makes sure they are “doing the right thing”.

DESIGN PRINCIPLES

I concluded my research process with eight design principles, which were gathered from insights found in the literature review, competitive analysis and interview synthesis. The Design guidelines depict the most important aspects of my research. They are meant to be used together with the Behavioural archetypes to prompt ideation and further iteration of the idea.

1. Practising self-care can help find work-life balance and reduce overworking, time-pressure and its causal work-related stress
How might we help busy people to take better care of themselves?

2. The modern busy person often feels guilty and undeserved over their leisure time.
How might we help The Chronic Post-poners to have fulfilling leisure time?

3. Focusing on just increasing productivity makes the modern busy person less introspective over their life.
How might we help busy people to be more introspective and think about what “the right thing” is for them?
How might we make busy people feel more responsibility over the time spent?

4. Constant work distractions hinders the modern busy person’s attempts to be productive.
How might we help busy people be less susceptible to distractions at work?

5. Expressing time constructs metaphorically could make the user change their perspectives on certain situations.
How might we express time metaphorically in the developing concept?

6. Using the Community experience feature strategically is only helpful when the user feels a sense of belongingness
How might we create a sense of belongingness for different types of communities in one application?

7. Designing Community experiences in digital platforms requires new and creative solutions to make the user feel as if they are experiencing it with a real person.
How might we design digital community experiences to be more visually impactful?

8. When using the Self-care check-in feature, avoid using a commanding or know-it-all tone. Eliciting hindsight experience is the key.
How might we make time-use recommendations without losing the feeling of autonomy for the user?
How might we encourage the user to choose new activities?

EXPLORATION

For the ideation to work, it was needed to focus on 1-2 behavioural archetypes and How Might We's. For the first round I chose to ideate for The Workaholic with the following question: **How might we help The Workaholic to take better care of him/herself during work hours?**

My initial idea was a self-care application (Image 12), that helped the user to take mindful breaks. It was meant to be used whenever the person wanted to take a break during their work.

I was inspired by simulation games to create a life-like room (Image 13), where the user could look for different self-care activities to take on during their break. I explored this idea digitally and created two different corners of the room, where activities would hide inside different items.

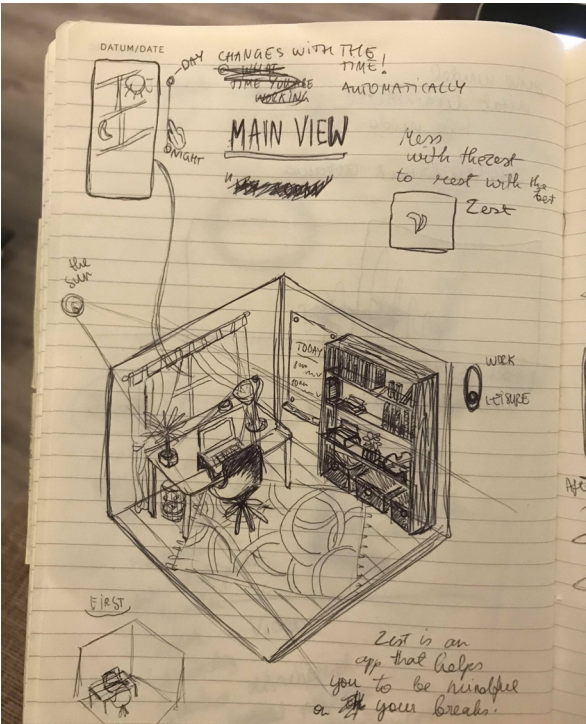


Image 12. Sketching of the initial idea.



Image 13. Digital iterations.

EXPLORATION

Ideating further revealed some shortcomings:

- The level of detail was too high and on a phone screen it would be easy to miss certain items that are hidden in the cupboards
- It did not make sense that the application was meant to use only at work
- There are endless self-care actions - how are they going to fit inside a little room?

I understood that I got a little carried away with designing the look than the content so I switched my focus on the latter. I tweaked the question and ideated with the Chronic Post-poner, instead.

How might we help The Chronic Post-poner to take better care of themselves?
How might we encourage The Chronic Post-poner to have fulfilling leisure time?

Proceeding with the previous self-care application idea, I started thinking of what features it needed to have to motivate The Chronic Post-poner into taking on better self-care actions. Since they are easily influenced by other people, I figured they could be motivated if they feel a sense of belongingness with other people who are struggling with the same issues. I came up with an idea of showing on the specific action pages how many other people are taking the action in live. For example, **to motivate the user to take a walk, there would be a digital hallway where you could see how many other people just took on that action.**

Since The Workaholic could also benefit from community influence, I took the archetype back into the ideation and thought about specific ideas that would suit them. The Workaholic could be influenced by seeing how quick the self-care actions can be, so in their mind they would not lose a lot of time they need for working. For example, **in the onboarding process, there could be a list of recommended activities with an option to see what are some quick self-care activities.** Something very simple as drinking water is self-care and could feel rewarding if done consciously.

EXPLORATION

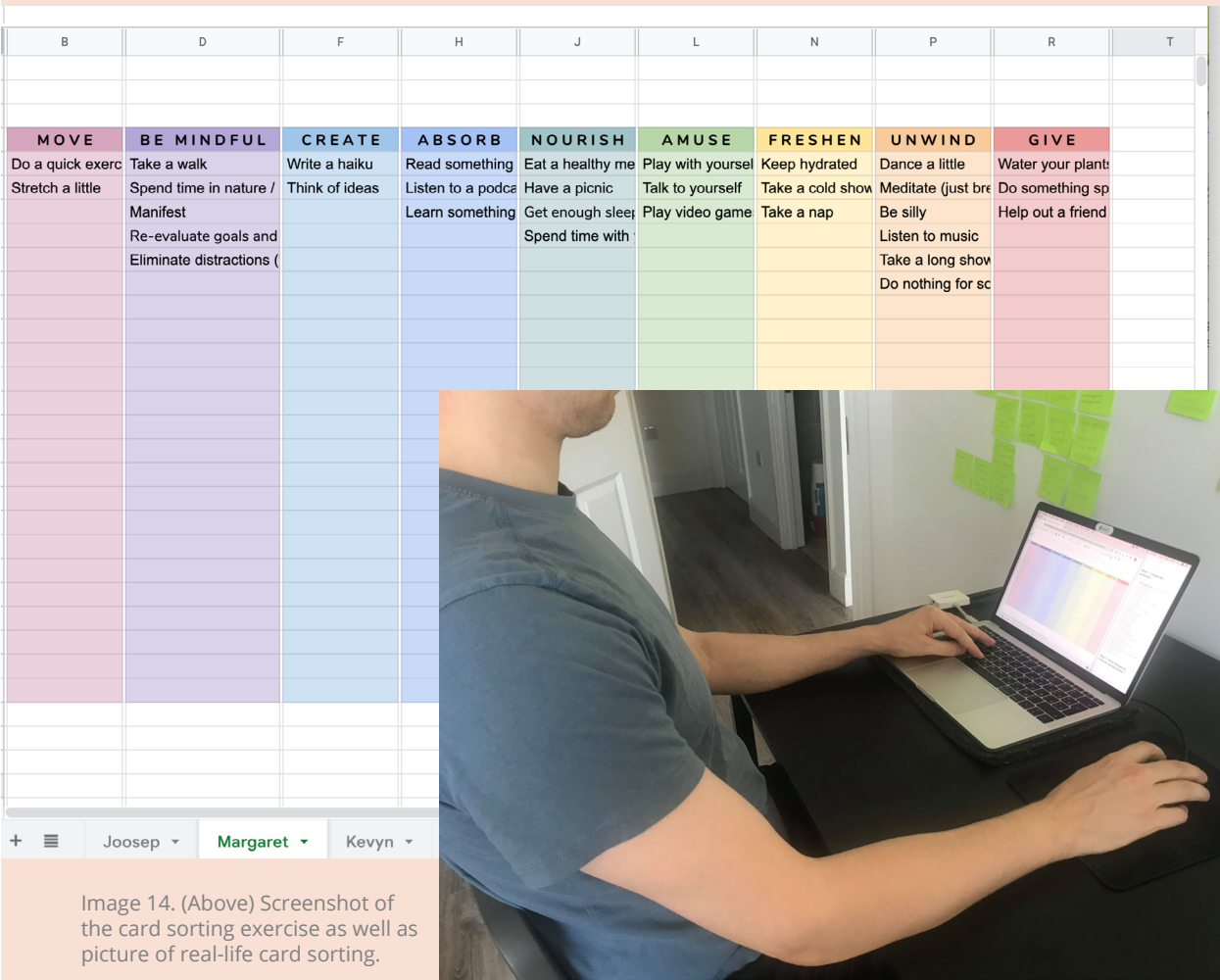


Image 14. (Above) Screenshot of the card sorting exercise as well as picture of real-life card sorting.



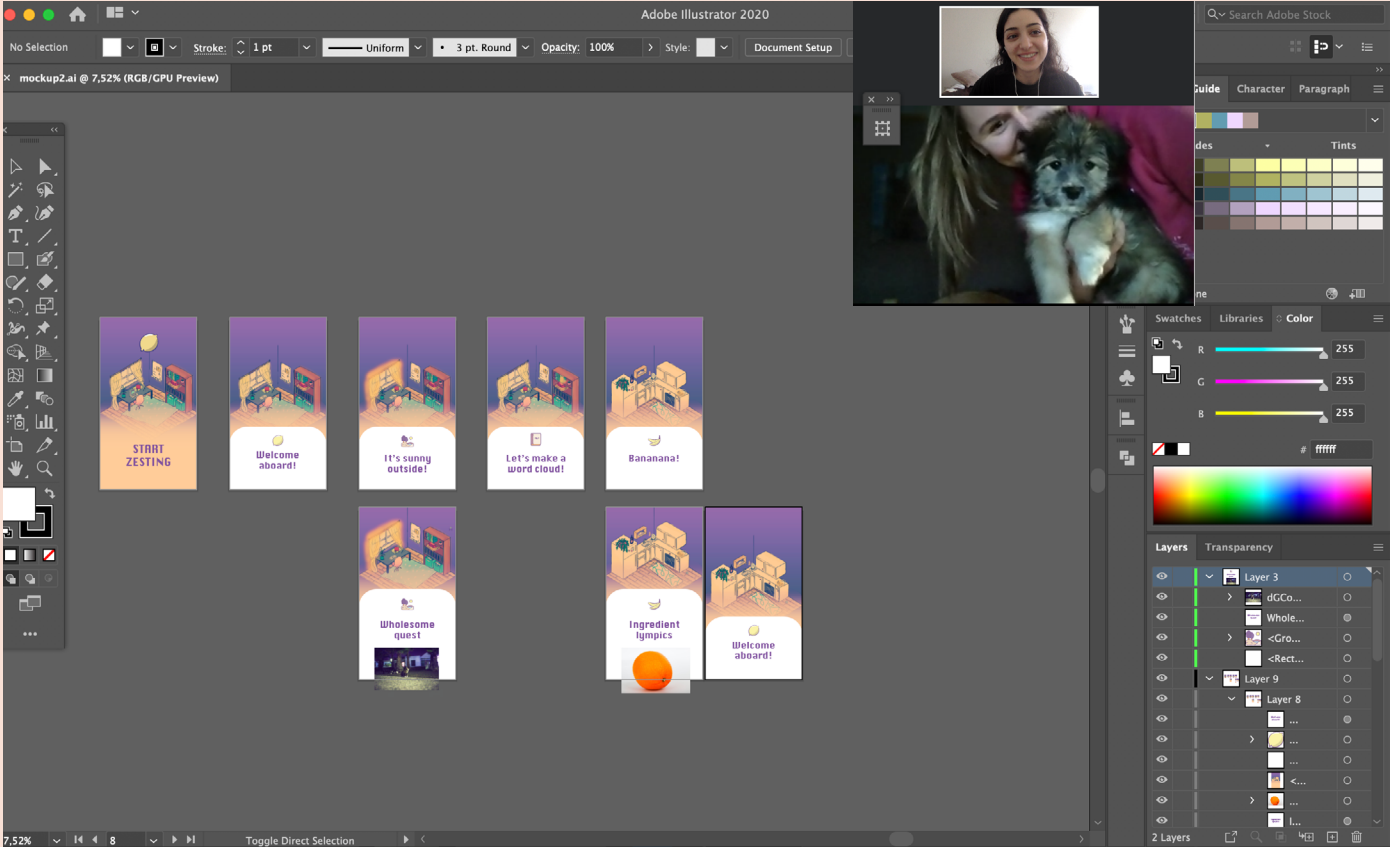
Image 15. (Below) Testing the initial idea with a target user through screenshare.

Moving on with the idea, I started thinking about the specific self-care actions that the app would recommend the user. I came up with thirty one self-care actions and made different themes that would describe the main goal of the action - **Move, Be mindful, Create, Absorb, Nourish, Amuse, Freshen, Unwind, Give**. To get a better understanding on how users view the actions, I conducted a card sorting exercise with 3 people who identified themselves with the archetypes.

With the planned features and list of activities, I started visualising the flow of the application. I had figured out what seemed like the start of the journey - open the application, choose activities, get motivated and start doing the activity. Before figuring out the next components, I tested the initial prototype with a target user.

Testing the initial prototype revealed important insights:

- Although a life-like room is fun to look at, the act of searching for the activities that are hidden could easily get repetitive
- The user would want to be encouraged rather than motivated - **feeling encouraged is perceived friendlier**
- The application **lacked feedback** - what happens if the user does not want to do the activity? Are they encouraged further? At the same time, how does the user see their progress if they do the activities?
- The listed actions **lacked passive ones** - the user would like to see “watching Netflix” or similar passive actions, which are also considered self-care



EXPLORATION

First two insights made me realise that I needed to let go of the room aesthetic, since it was already very detailed and complicated visually. Mainly, I was touched by the second insight - a room of activities can be motivating, but it needs a character that would encourage the person. Ideally, I wanted this character to represent the user's inner self. So I started thinking about what could represent the user's inner feelings. In my mind, feelings are fluid/flowy so I came up with a ghost-like character (Image 16) and developed the prototype further around this character.

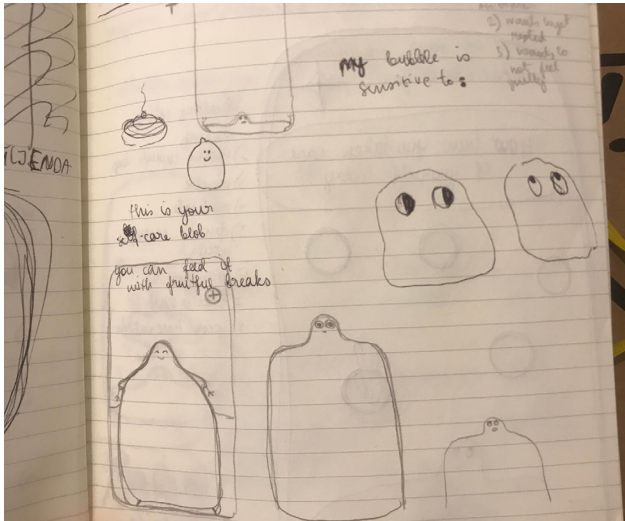


Image 16. Developing the character

I proceeded with shaping how the application would give feedback to the user (Image 17). I explored ways in which the ghost-like character could depict whether the user is having enough self-care activities in a day. For example, if there are no activities done during the day, the character could look a little sad and deflated and look up to the activity buttons.

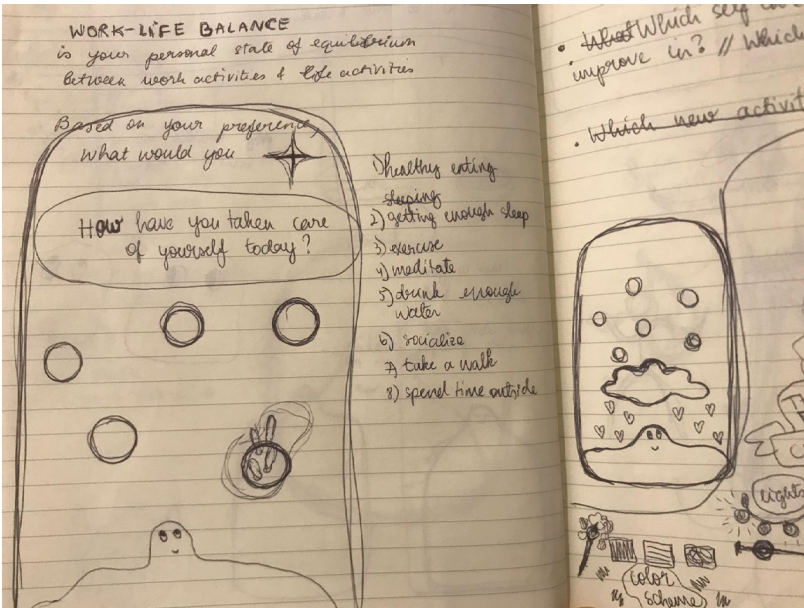


Image 17. Developing feedback interactions

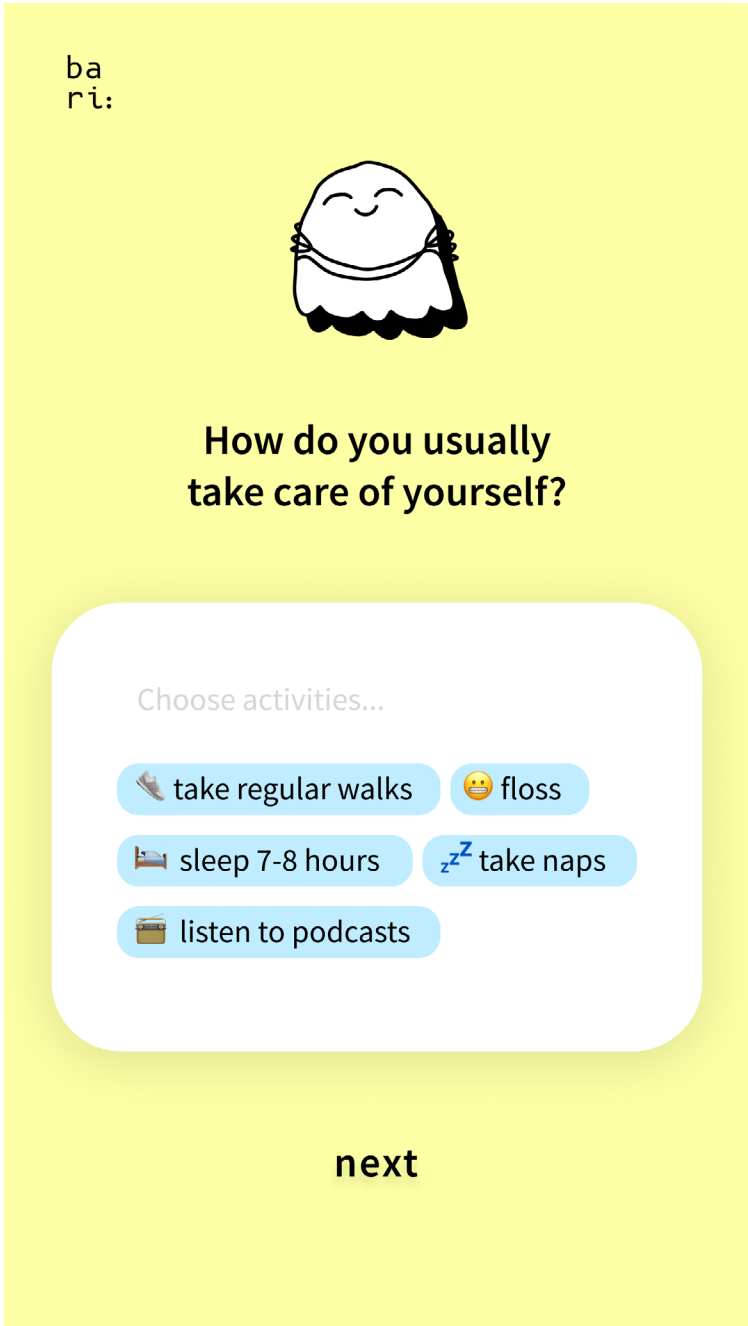
During the digital design process, whenever I was stuck with small challenges, I iterated on them using the design guidelines and behavioural archetypes. I found that they were useful to use at every stage and helped to always keep the user's needs in mind.

BARI: THE SELF-CARE APPLICATION

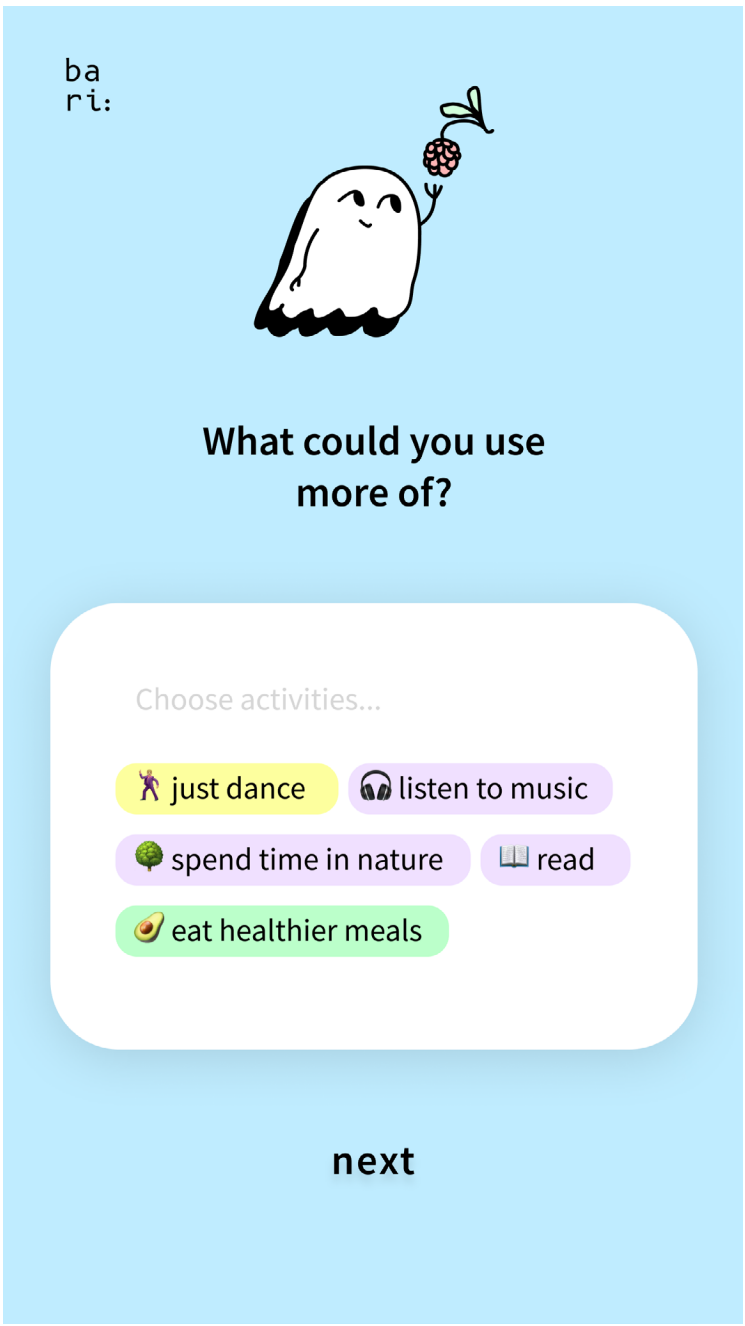


bari:

bari: is a self-care application that encourages its users to be kinder to themselves



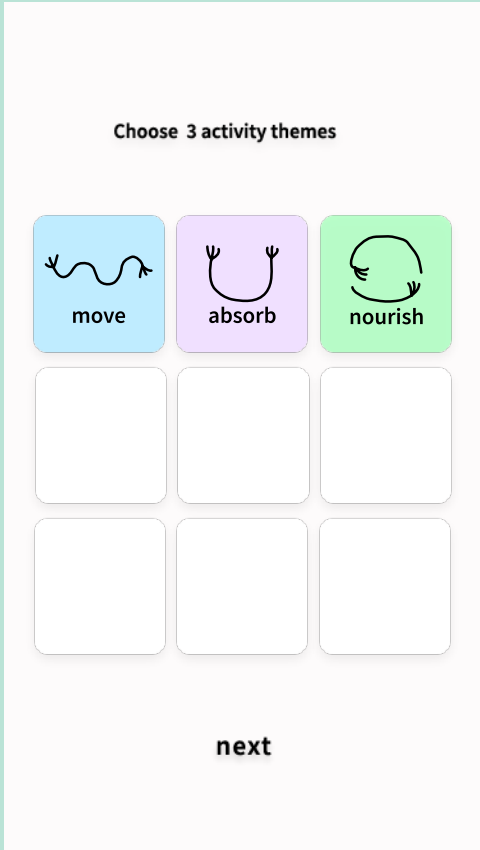
Firstly, it get's to know the user's leisure time habits



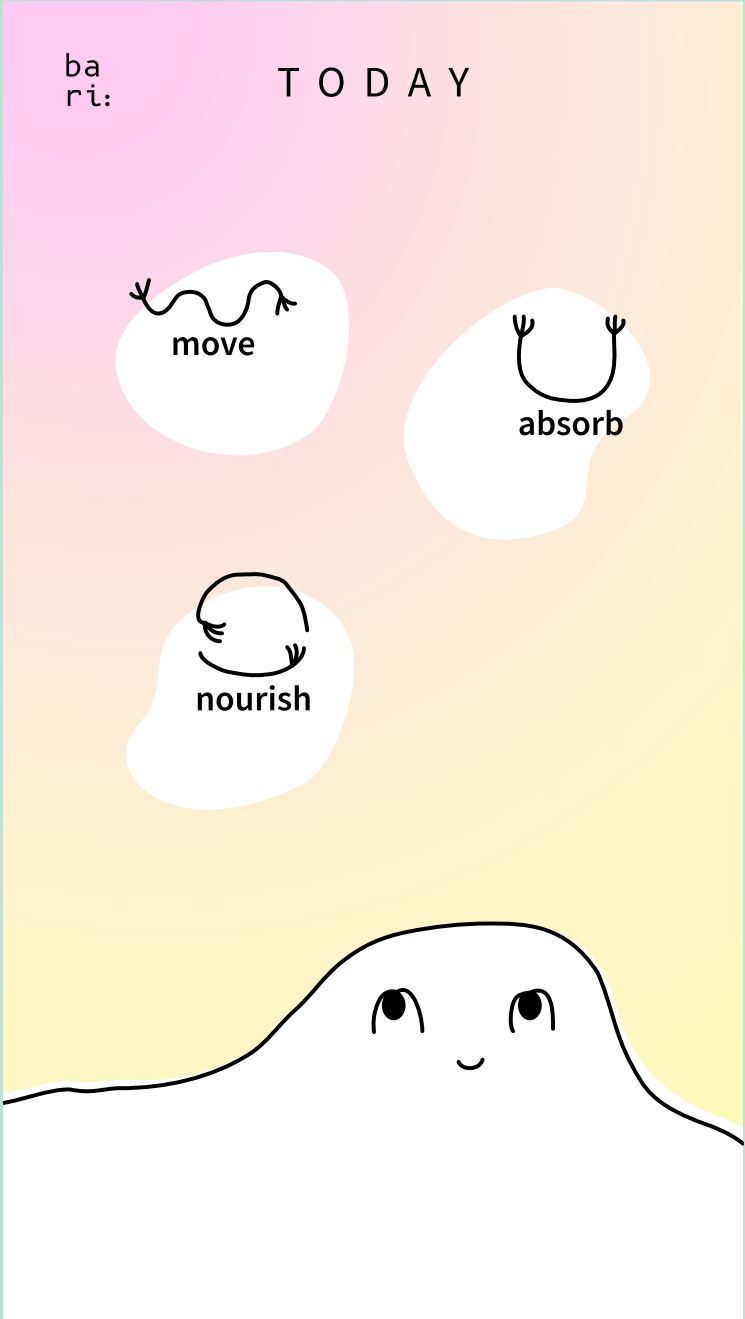
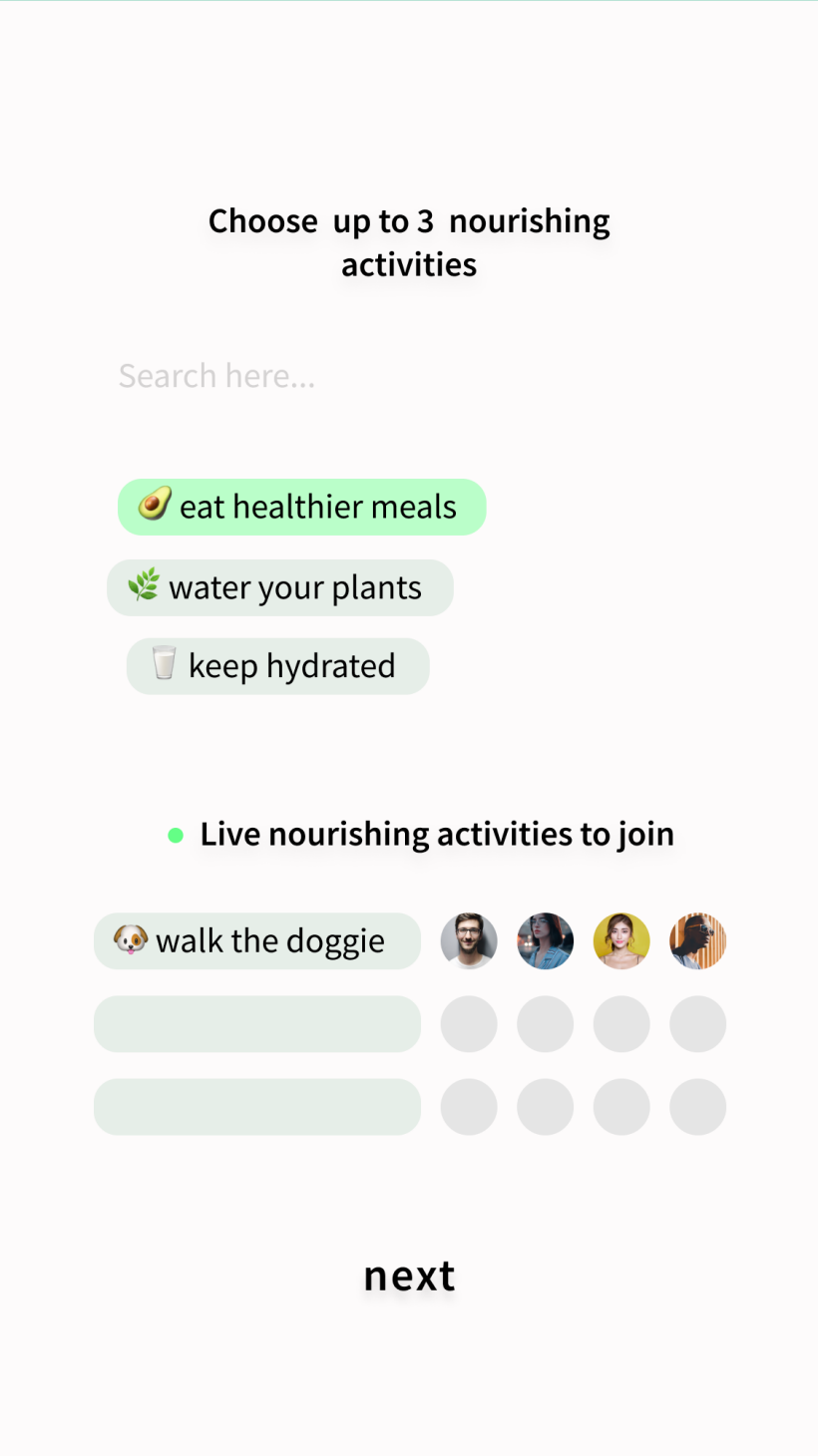
Then, it asks what the user could use more of in their days



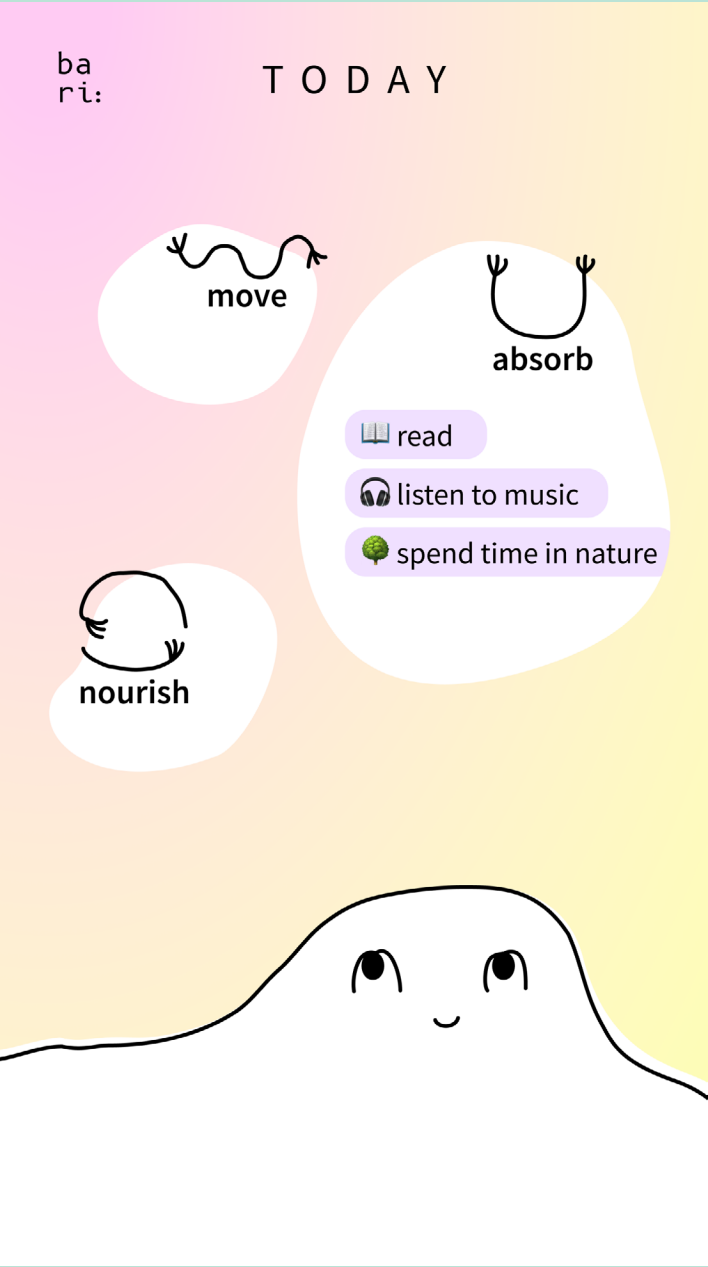
The specific activity lists have suggested activities, an option for the user to search activities themselves and a community feature with live activities



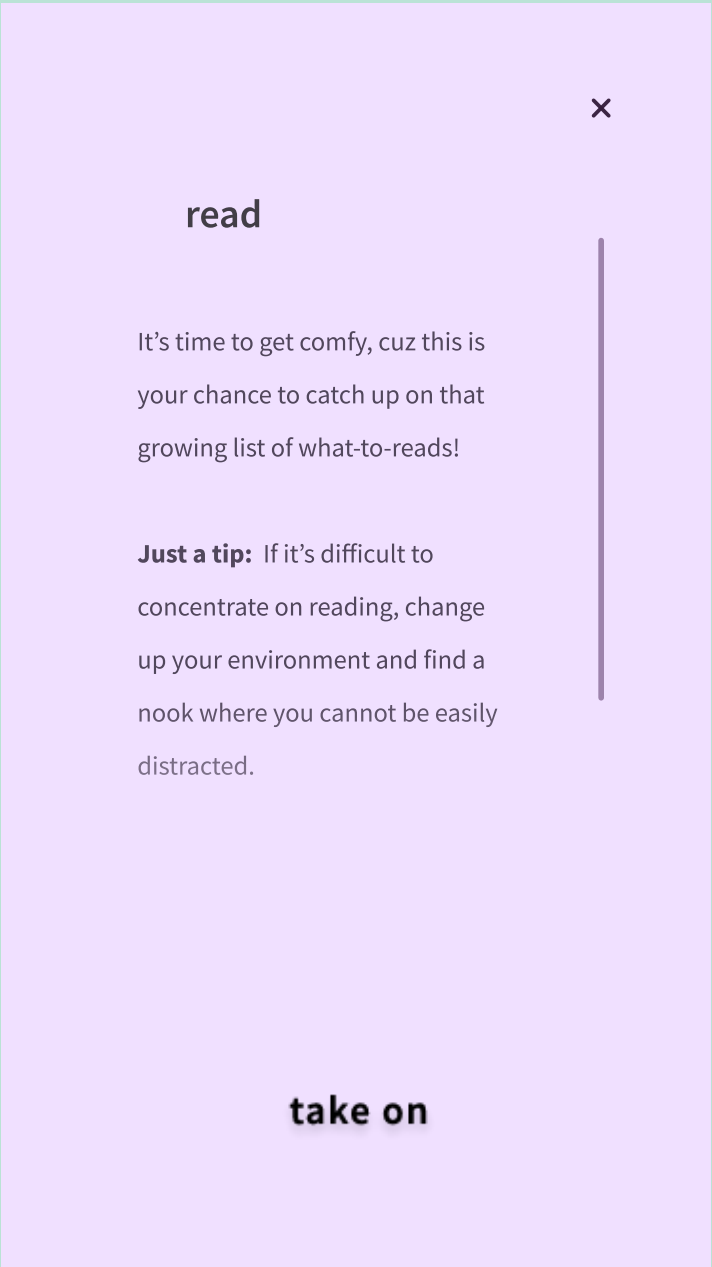
The user can choose 3 activity themes to proceed to the specific activities



The chosen activity themes are visible all times on the homepage where the activity creature lives



When clicked, the activity theme blobs open up

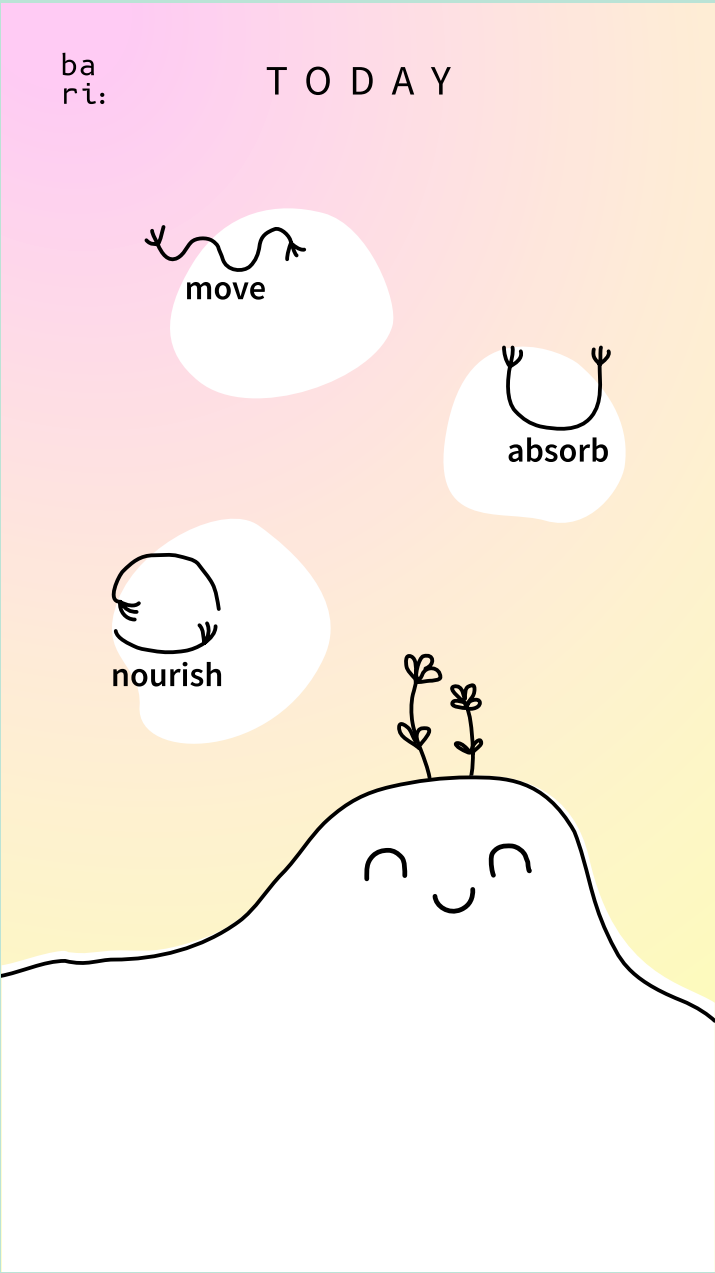


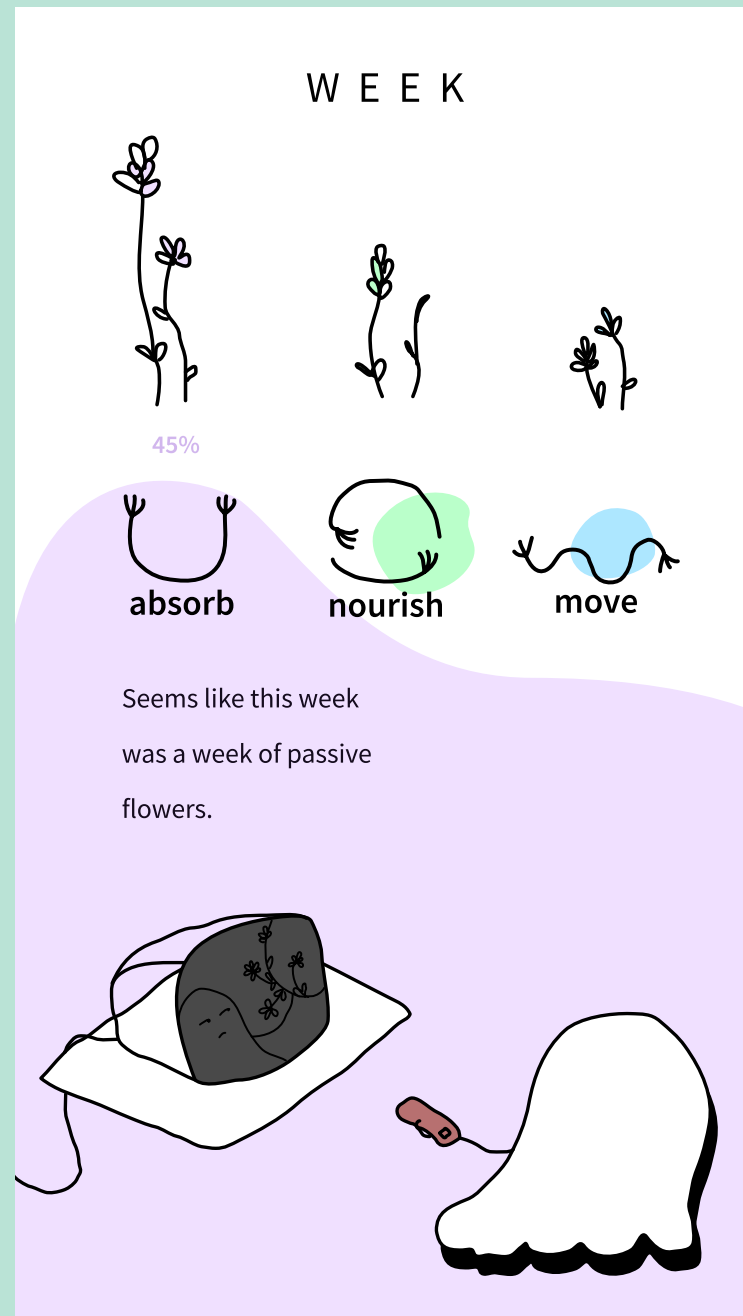
Each of the activities have a separate page to give the user encouragements and other interactions

When the user takes on the action, he/she is allowed to drag the activity into the creature



The action creature appreciates that the user is taking care of themselves. Flowers are grown to depict fulfillment





Lastly, the user can see their progress on activities on the week-view and evaluate what activities to take for the next week

Looking back this has been a very special journey for me. Since this was partly a Behavioural Design project, I did emphasise research and searching insights from research more than I was used to. Although Design Research has evolved into its own field, I believe that particularly for this project, the research of the psychological science was needed to fully understand the behaviours of overworking.

Writing the autoethnographic analysis was a new method of research for me, but I enjoyed it and the analysed insights were helpful in forming the design guidelines. Something that got cancelled due to COVID-19 was Competitive Usability Testing, which I would recommend doing to gather diverse insights from the available applications for designers interested in researching this topic further.

I believe this thesis can be helpful to designers who want to develop applications for the modern busy people. It provides enough material (the behavioural archetypes and design guidelines) to be able to ideate for many rounds.

The word 'bari' means 'kind' in Armenian. And as an Armenian, I want to thank the very *bari* people who made it possible for me to be here and write a Reflection chapter for a Master's thesis.

Thank you to my kindest advisors, Maarja and Lauren, who were always guiding me in the right direction, gave valuable feedback and made it possible for me to grow so quickly over the last 4 months. I appreciate your help so much!

And a special thank you to Tanel and Nesli for making sure I don't end like The Chronic Post-poner and keeping the process balanced at all times!

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INTERVIEW QUESTIONS

- What is the first word that comes in mind when you think about time?
- Think more descriptively. Finish the sentence:
- Time is ...
- Do you think deeply about time sometimes? If yes, what do you wonder?
- How would you define a modern busy person?
- For the most part, are you a busy person or an available person?
- Why do you think people are busier nowadays (if you do)?
- How do you spend your time in general, how does a usual day look like?
- Do you have any joyful routines (as in small joys like drinking coffee in the morning, etc.)? What are they?
- When you are having your leisure time, do you think about it as deserved free time or procrastination?
- Do you feel guilty about your leisure time? Why (if you do)?
- What motivates you to do what you do (in life/in work)?
- In general, do you get a lot of things done?
- Do you have some strategies that keep you productive? (more specific things rather than motivation behind it)
- Do you plan your time? F.e. todo lists, notebooks, calendars etc. Name tools. Why those tools?
- Why do you need to plan (if you do)?
- Do you ever track your time? F.e. diaries (journalling), mood trackers. Name tools. Why those tools?
- Why do you need to track time (if you do)?
- How long (approximately) can you concentrate on work/studying in a day? What is it influenced by?
- How often do you procrastinate (if you do)?
- Why do you think you procrastinate (if you do)?
- How do you feel when you fail to do tasks you've planned? Why?
- Do you enjoy usually the process of working or rather the outcome?
- Are you satisfied with what you do (in life)?
- What are 3 things that make you the most stressed?
- What are 3 things that help you to be satisfied with your life?
- What are things that help you to be satisfied with your work? Are they similar with the previous answer?

KOKKUVÕTE

Paljud teadlased on ühel meelel, et hõivatusest on saanud nüüdisajal staatuse sümbol. Sellest tulenevalt on asjakohane arvata, et inimesed tunnevad end suurema ajalise surve all kui kunagi varem. Enamasti mõjutab aja surve meie tervist ja elustiili negatiivselt ning sellest tulenev stress võib tervist ka raskemalt kahjustada.

Selles lõputöös vaadeldakse teadusartikleid psühholoogia valdkonnas, et leida, millised on kõige sagedamini kasutatavad strateegiad tööstressi vähendamiseks või ennetamiseks. Samuti antakse lõputöös ülevaade digitaalsetest arendustest, mis on loodud nendel strateegiatel ja viiakse läbi intervjuusid, et mõista just ajasurve all ületootamise käitumist. Intervjuud sünteesitakse käitumuslikke disainimeetodeid kasutades käitumuslikeks arhetüüpideks ja kujundusprintsipiideks.

Kujunenud arhetüüpidele ja juhiste põhinedes luuakse lõputöö tulemusena digitaalrakendus bari:, mis julgustab inimesi olema lahkemad enda vastu. Bari on mõeldud inimestele, kes tunnevad end sageli nii tööst kui ka aja survest väsinuna. See julgustab ja motiveerib kasutajat enesesõbralikkuseks aega varuma ning aitab seda aega tasakaalukamalt ja taastavamalt veeta.

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