

Design Brief I

Design challenge II: Change Punctuality

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1 Domain research

Up to 20% of people in the United States have issues with **punctuality**. The reasons for **tardiness** are various, and such behavior cannot simply be attributed to lack of respect or consideration.

1.1 Fear of being early

One possible explanation is the **fear of being early**. There are several reasons for this:

- Being early is inefficient as it requires having to sit around with nothing to do; the waiting time is too short to get into any other project. Latecomers thus prefer to use time productively than wait around inefficiently.
- Tardy people hate the uneasiness of being early. They feel awkward and uncomfortable waiting. Furthermore, they might even feel as if others are watching and judging them, whether this is true or not. In the end, they do not want people to think that their time is not valuable.
- Politeness: stragglers may not want to disturb someone by getting there too soon.

The solution would then be finding ways to make being early more valuable.

1.2 Time underestimation

Lateness is also related to lack of self-control and organizational issues. Research has shown that people on average **underestimate** how long a task will take to complete by a significant 40%. The underlying reason behind this fact is the difference in individuals' **Time-Based Prospective Memory**, which is the ability to remember to execute a delayed intention after a specific time. Thus, people can sharpen their sense of time by timing their routine tasks and gain a better overview of how much time they actually need.

1.3 Profiles and personality types

Concerning the behavior patterns found in tardy people, researchers have identified three main profiles:

- The **Deadline** enjoys the rush of the last minute. Sometimes it is difficult for Deadliners to motivate unless there is a crisis. Rushing serves as a way to relieve boredom.
- The **Producer** needs to get as much done in as little time as possible. Producers tend to consistently underestimate the amount of time their tasks will take. They hate wasting time, so they schedule themselves to make use of every minute of the day.
- The **Absent-Minded Professor** is easily distracted. Distractibility is thought to have a genetic basis and can range from full-blown attention deficit disorder to innocent flakiness. Absent-Minded Professors often lose track of time, misplace car keys and forget appointments.

2 POV statement

People with punctuality issues need an app to be dynamically informed of their lateness status and compete with their friends as an incentive because they tend to misevaluate the amount of time their activities require.

3 Competitive analysis

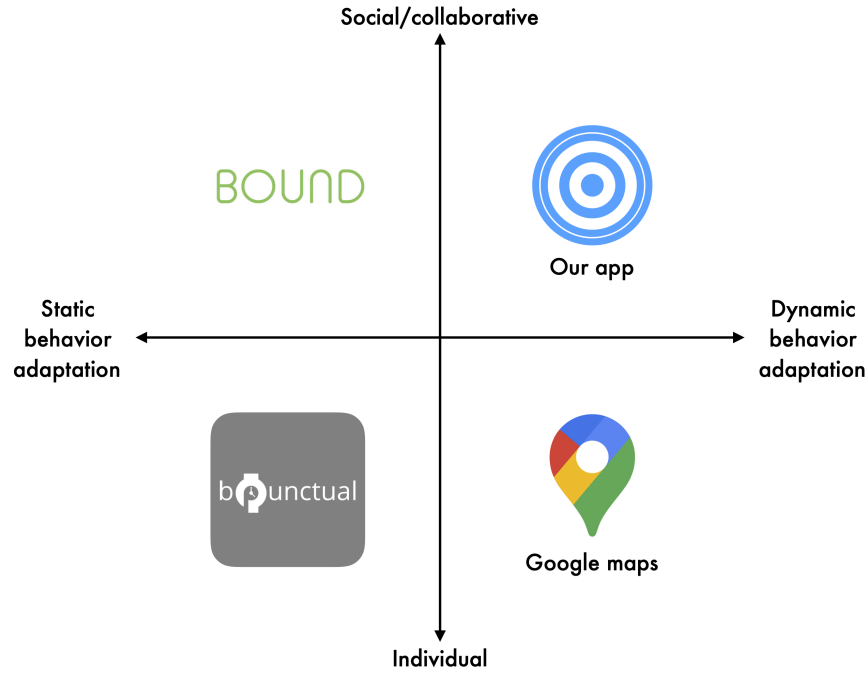


Figure 1: Competitive Analysis map

We projected the competitive analysis onto the social spectrum and through the self regulating solutions the app are providing. Static behavior adaptation defines the tools that provide informations that do not change through time and generates motivation with other techniques. Dynamic behavior adaptation describes the solutions that helps the user to regulate its ongoing schedule in order to aim for punctuality.

bPunctual helps you track your punctuality and determines when it is time to leave for your next appointment by automatically connecting to your calendar.

Bound uses bets as an incentive to get to a meeting on time. If you get there on time, you will win your friend's bet. If you are late, your friend will win yours.

Google Maps reminds you when it is time to leave for your trip and shows you alternate routes depending on the current traffic.

4 SUNA analysis

4.1 Suitableness

Our idea is useful, innovative, and feasible because it helps people become more punctual, combines various proven techniques for quitting bad habits, and makes use of a platform that can reach everyone. It is therefore suitable for a Human-Computer Interaction class.

4.2 Usefulness

Breaking a bad habit takes time, effort and commitment. Our app helps keeping the motivation and discipline to overcome this behavior pattern using effective techniques such as gamification, peer pressure and checkpoints.

4.3 Novelty

As described in the competitive analysis, there is no app really specialized in this field. We approach the problem by implementing ideas issued by psychological studies and experiments. Our app is the first combining gamification techniques, peer pressure, reminders, location-based services, checkpoints and action-timing to help people be on time.

4.4 Adequacy

Most people have a smartphone and know how to use it. Thus, a mobile app is an adequate technology for our target population.