Psychology Research

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The users of ATOM are the very reason the project exists. This project will provide a service that cannot exist apart from the habits that users will track with it. Therefore, it is necessary to fully understand how and why users will be setting the habits that they set.

Why do users need habits?

Habitual goal setting is an effective way of utilizing the way our brains work in a positive fashion. Everyone has habits, but many are not harmful nor helpful. For instance, some people instinctively brush their teeth every morning when they shower, or might pull out two eggs every morning to eat. These happen without even thinking, and it can be uncomfortable for the person if they are unable to complete these habits, reinforcing their existence.

Why do habits develop?

There are many reasons why a person might develop a habit. Wendy Wood and Dennis Rünger write, "[Habits can be the result of] aspects of physical environments, other people, and preceding actions in a sequence. Once habits form, perception of the relevant context cues automatically activates the mental representation of the habitual response" (Wood, Rünger). Essentially, if a person is repeatedly performing an action and/or there is a strong social or emotional effect tied to the action, a habit can often form.

Our brain forms habits to increase its efficiency. Psychology Today reports that habits allow people to "perform useful behaviors without wasting time and energy deliberating about what to do" (Psychology Today). However, due to this, negative habits can easily occur. Many famous bad habits include biting or picking parts of one's body, sleeping at irregular times, or checking one's phone constantly. These habits develop because these actions are tied to strong feelings or pressure (anxiety, stress, a desire to be mentally stimulated) and are therefore done repeatedly. One's brain then reduces the need to think about doing this action, allowing for less deliberation and

more action. It's efficient, but for these examples of bad habits, it's ultimately harmful. It's also very difficult to break these bad habits once they're formed, as many are central parts of our routines; for example, going to bed at a regular time when you've been sleeping irregularly can be painfully difficult. Therefore, it should be a person's goal to be conscious of what habits they are forming, and to recognize and support the good habits while trying to fix the bad ones.

How can we use habits to work towards our goals?

Habits are an excellent goal-reaching tool. Their nature of being daily, quick actions that are tough to break means that they can stop a person from being distracted or having "a few off days" that can throw them off track. However, to get to this point of efficiency, one usually has to be consciously committed to setting up this habit. This is where the work of James Clear in his book *Atomic Habits*, the basis of our project, comes in.

Importantly, James describes the idea of "micro-habits," purporting that implementing a variety of smaller habits that work towards an ultimate goal is better than having a difficult-to-begin main habit. As reported by Michelle M. Shnayder-Adams and Aarti Sekhar in their breakdown of Clear's work, "micro-habits compound over time and… true behavior change is identity change" (Shnayder-Adams and Sekhar). If one focuses on creating a variety of small changes in their daily routines, it will become easier and easier to reach goals and enforce habits because they will have completely changed the way they live their life.

Why use an app like ATOM to track the habit?

Aside from the obvious reason, which is that it's difficult to remember goals you don't write down, tracking a habit creates somewhat of a ritual around your habit following. "The act of tracking a habit can create a visual cue that serves as a behavior reminder. Furthermore, the competitive nature of forming a streak can be motivating in itself, and the simple act of recording a successful behavior can serve as positive self-reinforcement" (Shnayder-Adams and Sekhar). An app can make the very beginning of starting these smaller habits so much easier by providing a "habit hub" users can turn to when overwhelmed.

How does this appeal to our user base?

"Study habits are more like flexible frameworks that are applied to different learning contents" (Fries, Grund, and Stojanovic). This is from these three author's paper on how app-based habits can assist students with their work. With our target user

base being Westphal students looking for a way to balance the overwhelming schedule of school life, we should understand that students will have a great variety of habits they need implementing, and that these habits will never be cut-and-dry. It takes a lot of micro-habits to make the main habit of "study more" work properly. An app like ATOM will, crucially, **break up these habits into small, visually striking micro-habit trackers that entice users to complete them, subconsciously creating a positive cycle without users even noticing**. Students have enough stresses; taking care of their lives shouldn't be another one.

Why include a social aspect?

This is the aspect of ATOM that would set it apart from its contemporaries and competitors. James Clear himself discusses the importance of a group to keep one accountable; he encourages people to "take advantage of social tendencies to follow-through on commitments and avoid punishment or disappointment" (Shnayder-Adams and Sekhar). Social pressure is not innately negative, and it's often the only reason one might get out of bed on an otherwise beautiful day. We can push each other to achieve our goals and fight against complacency. With this, users losing interest is less of a worry; the fact that one doesn't want to let one's friends down is enough to keep you motivated in many scenarios.

Main habit-forming factors to consider

The main factor of habits is the most obvious one: **remind and repeat**. The tactic of "keep the user coming back regularly" can be seen in everything from sales to artistic ventures, but it is especially important for habits. ATOM cannot function as intended unless the user is invested in the goals they set, so they should be encouraged to set realistic, important goals that they care about. Usage of the app itself is also crucial to forming these habits; notifications and reminders will keep the user from forgetting about the app and the goals that they set. It should be made clear that the user is meant to check in every day and quickly update the app, a process that does not take much time at all, but would in and of itself create a micro-habit. We can also use the social pressure present in the group aspect to reinforce this, notifying users when their groupmate has reached a goal or surpassed them.

At the same time, a very important but easily forgotten detail is to **keep things fresh**. This is expressed perfectly in *Atomic Habits*, where Clear writes "The greatest threat to success is not failure but boredom. We get bored with habits because they stop delighting us. The outcome becomes expected" (Clear, 234). Keeping habits alive is as much the duty of the user as it is the designer. If ATOM is to truly assist users with forming habits, we must make sure that our system combines repetitive prompts with a

novel, changing aspect. While there is no clear-cut way to accomplish this, it should be at the front of our minds as much as we design the functions of this project. The last thing we want is for our users to be constantly using our app for a few days, but quickly drop it when they get bored.

Finally, we should not be afraid to **make group features enforce pressure**. It might seem aggressive to allow for competitive aspects and features, but previous experiments suggest that it is this social pressure that will prevent users from focusing on their habits for a week or two before dropping the app out of boredom or a lack of encouragement.

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