

## About Habits

habits as “automatic behaviors triggered by situational cues”  
“behaviors done with little or no conscious thought.”

Habits form when the brain takes a shortcut and stops actively deliberating over what to do next. The brain quickly learns to codify behaviors that provide a solution to whatever situation it encounters.

A habit is when not doing an action causes a bit of discomfort.

Habit-forming products alleviate users’ discomfort by relieving a pronounced itch.

## Why investing in forming habits is important

User habits **increase how long and how frequently customers use a product**, resulting in higher CLTV.

As customers form routines around a product, they come to depend upon it and **become less sensitive to price**.

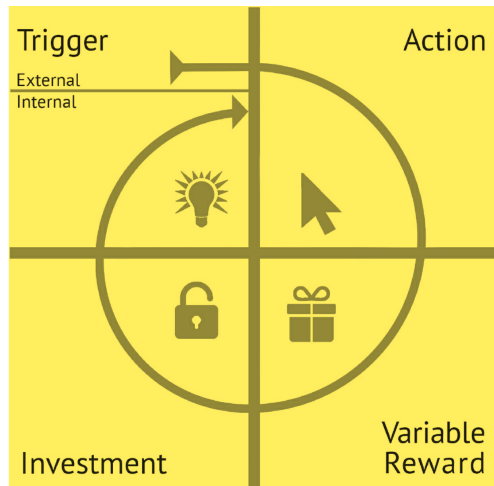
Viral Cycle Time is the amount of time it takes a user to invite another user, and it can have a massive impact.

**Having a greater proportion of users daily returning to a service dramatically decreases Viral Cycle Time** for two reasons: First, daily users initiate loops more often (think tagging a friend in a Facebook photo); second, more daily active users means more people to respond and react to each invitation.

## About Hooks

profoundly change behavior by **guiding users through a series of experiences I call hooks**. The more often users run through these hooks, the more likely they are to form habits.

Through consecutive Hook cycles, successful products reach their ultimate goal of unprompted user engagement, bringing users back repeatedly, without depending on costly advertising or aggressive messaging.



Attach product to *internal triggers* - link to users daily routines and emotions

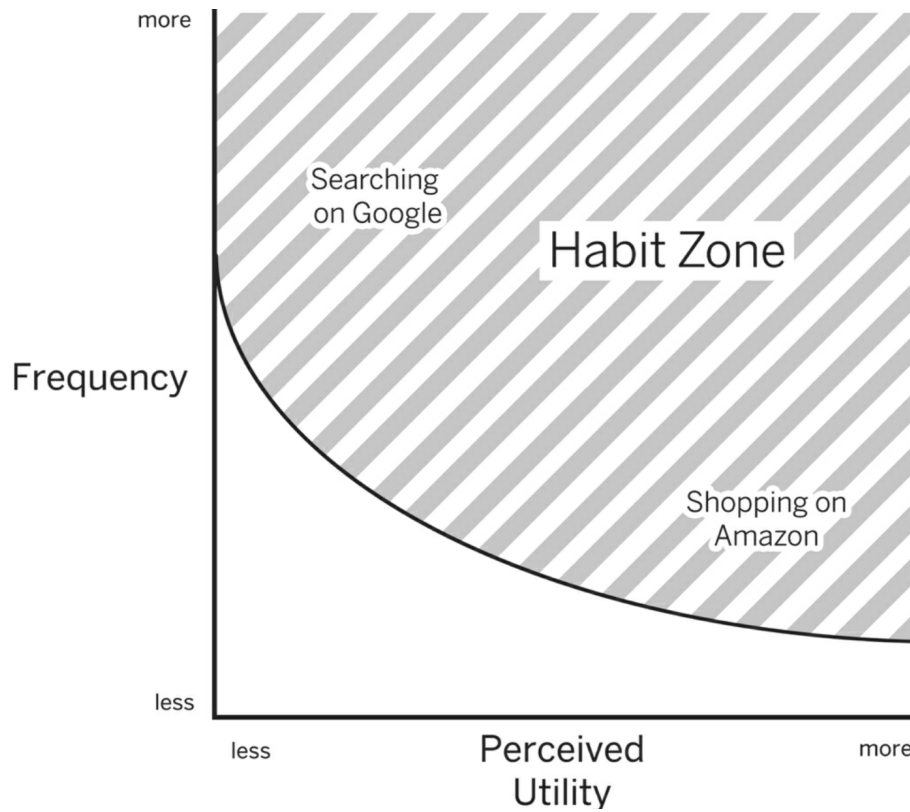
building habit-forming products is indeed a superpower.

**Hooks connect the user's problem with a company's solution frequently enough to form a habit.**

Frequent engagement with a product—especially over a short period of time—increases the likelihood of forming new routines.

For an infrequent action to become a habit, the user must perceive a high degree of utility, either from gaining pleasure or avoiding pain.

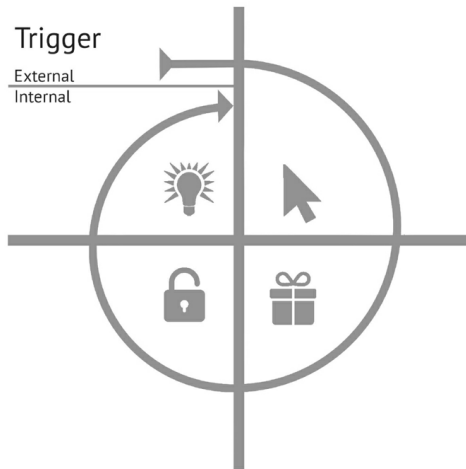
habit-forming potential by plotting two factors: frequency (how often the behavior occurs) and perceived utility (how useful and rewarding the behavior is in the user's mind over alternative solutions).



Habits cannot form outside the Habit Zone, where the behavior occurs with enough frequency and perceived utility.

The complexity of the behavior and how important the habit was to the person greatly affected how quickly the routine was formed.

Trigger



trigger is the actuator of behavior

Habit-forming products start by alerting users with external triggers like an e-mail, a Web site link, or the app icon on a phone.

By cycling through successive hooks, users begin to form associations with internal triggers, which attach to existing behaviors and emotions.

New habits need a foundation upon which to build. Triggers provide the basis for sustained behavior change.

Triggers take the form of obvious cues like the morning alarm clock but also come as more subtle, sometimes subconscious signals that just as effectively influence our daily behavior.

External triggers are embedded with information, which tells the user what to do next.

(Too many choices or irrelevant options can cause hesitation, confusion, or worse—abandonment)

## External triggers

While paid, earned, and relationship triggers drive new user acquisition, owned triggers prompt repeat engagement until a habit is formed.

## Paid Triggers

Too many choices or irrelevant options can cause hesitation, confusion, or worse—abandonment.

## Earned Triggers

Earned triggers are free in that they cannot be bought directly, but they often require investment in the form of time spent on public and media relations. Favorable press mentions, hot viral videos, and featured app store placements are all effective ways to gain attention.

For earned triggers to drive ongoing user acquisition, companies must keep their products in the limelight—a difficult and unpredictable task.

## Relationship Triggers

One person telling others about a product or service can be a highly effective external trigger for action.

Proper use of relationship triggers requires building an engaged user base that is enthusiastic about sharing the benefits of the product with others.

## Owned Triggers

Owned triggers consume a piece of real estate in the user's environment.

For example, an app icon on the user's phone screen, an e-mail newsletter to which the user subscribes, or an app update notification only appears if the user wants it there.

the trigger owns a share of the user's attention.

## Internal Triggers

Internal triggers tell the user what to do next through associations stored in the user's memory.

When a product becomes tightly coupled with a thought, an emotion, or a preexisting routine, it leverages an internal trigger. You can't see, touch, or hear an internal trigger.

Emotions, particularly negative ones, are powerful internal triggers and greatly influence our daily routines. Feelings of boredom, loneliness, frustration, confusion, and indecisiveness often instigate a slight pain or irritation and prompt an almost instantaneous and often mindless action to quell the negative sensation.

It can take weeks or months of frequent usage for internal triggers to latch onto cues. New habits are sparked by external triggers, but associations with internal triggers are what keeps users hooked.

## Action

Action: the behavior done in anticipation of a reward.

To initiate action, doing must be easier than thinking. The more effort—either physical or mental—required to perform the desired action, the less likely it is to occur.

to increase the likelihood of an action occurring: the ease of performing an action and the psychological motivation to do it.

For any behavior to occur, a trigger must be present at the same time as the user has sufficient ability and motivation to take action.

three ingredients required to initiate any and all behaviors:

- the user must have sufficient motivation
  - motivation defines the level of desire to take that action
  - all humans are motivated
    - to seek pleasure and avoid pain
    - to seek hope and avoid fear
    - to seek social acceptance and avoid rejection.
- the user must have the ability to complete the desired action
  - ability is the capacity to do a particular behavior.
  - Identify what the user is missing. What is making it difficult for the user to accomplish the desired action?
- a trigger must be present to activate the behavior.

**Influencing behavior by reducing the effort required to perform an action is more effective than increasing someone's desire to do it.**

Consequently, any technology or product that significantly reduces the steps to complete a task will enjoy high adoption rates by the people it assists.

Elements of Simplicity:

- Time—how long it takes to complete an action
- Money—the fiscal cost of taking an action
- Physical effort—the amount of labor involved in taking the action

- Brain cycles—the level of mental effort and focus required to take an action
- Social deviance—how accepted the behavior is by others
- Non-routine - “How much the action matches or disrupts existing routines.”

“What is the thing that is missing that would allow my users to proceed to the next step?”

- Is the user short on time?
  - Is the behavior too expensive?
  - Is the user exhausted after a long day of work?
  - Is the product too difficult to understand?
  - Is the user in a social context where the behavior could be perceived as inappropriate?
  - Is the behavior simply so far removed from the user’s normal routine that its strangeness is off-putting?
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- Scarcity Effect - The appearance of scarcity affected their perception of value
  - Framing Effect - The appearance of scarcity affected their perception of value
  - Anchoring Effect - People often anchor to one piece of information when making a decision
  - Endowed Progress Effect - a phenomenon that increases motivation as people believe they are nearing a goal

Understanding and leveraging these methods for boosting motivation and ability can prove highly impactful.

## (Variable) Reward

reward your users by solving a problem, reinforcing their motivation for the action taken

What draws us to act is not the sensation we receive from the reward itself, but the need to alleviate the craving for that reward.

To hold our attention, products must have an ongoing degree of novelty

add some variability to the mix—suppose a different treat magically appears in your fridge every time you open it—and voilà, intrigue is created.

Research shows that levels of the neurotransmitter dopamine surge when the brain is expecting a reward.

Points, badges, and leaderboards can prove effective, but only if they scratch the user's itch. When there is a mismatch between the customer's problem and the company's assumed solution, no amount of gamification will help spur engagement. Rewards must fit into the narrative of why the product is used and align with the user's internal triggers and motivations. They must ultimately improve the user's life.

The researchers believe the phrase "But you are free" disarms our instinctive rejection of being told what to do.

Companies that successfully change behaviors present users with an implicit choice between their old way of doing things and a new, more convenient way to fulfill existing needs.

Experiences with finite variability become less engaging because they eventually become predictable.

Businesses must constantly churn out new content and experiences to cater to their consumers' insatiable desire for novelty.

## Tribe

Rewards of the tribe, or social rewards, are driven by our connectedness with other people

Our brains are adapted to seek rewards that make us feel accepted, attractive, important, and included

Albert Bandura called "social learning theory." Bandura studied the power of modeling and ascribed special powers to our ability to learn from others.

People who observe someone being rewarded for a particular behavior are more likely to alter their own beliefs and subsequent actions.

This technique works particularly well when people observe the behavior of people most like themselves or who are slightly more experienced (and therefore, role models).

Examples:

how many people have "liked" something. The uncertainty of what users will find each time they visit the site creates the intrigue needed to pull them back again.

"Likes" and comments offer tribal validation for those who shared the content, and provide variable rewards that motivate them to continue posting.

Stack Overflow devotees write responses in anticipation of rewards of the tribe. Each time a user submits an answer, other members have the opportunity to vote the response up or down. The best responses percolate upward, accumulating points for their authors. When they reach



certain point levels, members earn badges, which confer special status and privileges.

Users enjoy the feeling of helping their fellow programmers and earning the respect of people whose opinions they value.

## Hunt

The search for resources defines the next type of variable reward—the rewards of the hunt. The need to acquire physical objects, such as food and other supplies that aid our survival, is part of our brain's operating system.

Examples:

Slot machines provide a classic example of variable rewards of the hunt.

Twitter - To keep hunting for more information, all that is needed is a flick of the finger or scroll of a mouse. Users scroll and scroll and scroll to search for variable rewards in the form of relevant tweets

## Self

Rewards of the self is the search for intrinsic rewards of mastery, competence, and completion.

We are driven to conquer obstacles, even if just for the satisfaction of doing so. Pursuing a task to completion can influence people to continue all sorts of behaviors.

The rewards of the self are fueled by “intrinsic motivation” as highlighted by the work of Edward Deci and Richard Ryan. Their self-determination theory espouses that people desire, among other things, to gain a sense of competency. Adding an element of mystery to this goal makes the pursuit all the more enticing.

Examples:

Rewards of the self are a defining component in video games, as players seek to master the skills needed to pursue their quest. Leveling up, unlocking special powers, and other game mechanics fulfill a player's desire for competency by showing progression and completion.

E-Mail: Perhaps you unconsciously decided to open it to see what messages might be waiting for you. For many, the number of unread messages represents a sort of goal to be completed.

Codecademy's symbols of progression and instantaneous variable feedback tap into rewards of the self, turning a difficult path into an engaging challenge

## Investment

The commitments we make have a powerful effect on us and play an important role in the things we do, the products we buy, and the habits we form. **The more users invest time and effort into a product or service, the more they value it. In fact, there is ample evidence to suggest that our labor leads to love.**

investments are about the anticipation of longer-term rewards, not immediate gratification

The big idea behind the investment phase is to leverage the user's understanding that the service will get better with use (and personal investment). Like a good friendship, the more effort people put in, the more both parties benefit.

where the user does a bit of work. The investment phase increases the odds that the user will make another pass through the cycle in the future.

Rather, the investment implies an action that improves the service for the next go-around. Inviting friends, stating preferences, building virtual assets, and learning to use new features are all investments users make to improve their experience.

The nontransferable value created and stored inside these services discourages users from leaving.

Also in contrast to the action phase, the investment phase increases friction. This certainly breaks conventional thinking in the product design community that all user experiences should be as easy and effortless as possible. This approach still generally holds true, as does my advice in the action phase to make the intended actions as simple as possible. **In the investment phase, however, asking users to do a bit of work comes after users have received variable rewards, not before.**

“[If] you want to build a product that is relevant to folks, you need to put yourself in their shoes and you need to write a story from their side. So, we spend a lot of time writing what's called user narratives.”

clear description of users—their desires, emotions, the context with which they use the product—is paramount to building the right solution.

Little investments, such as placing a tiny sign in a window, can lead to big changes in future behaviors.

- We Irrationally Value Our Efforts
- We Seek to Be Consistent with Our Past Behaviors
- We Avoid Cognitive Dissonance

We invest in products and services for the same reasons we put effort into our relationships.

Every time users highlight a verse, add a comment, create a bookmark, or share from the app, they invest in it.

## Loading the Next Trigger

Habit-forming technologies leverage the user's past behavior to initiate an external trigger in the future.

Users set future triggers during the investment phase, providing companies with an opportunity to reengage the user.

Examples:

- Snapchat - Each photo or video sent contains an implicit prompt to respond;
- Pinterest - trigger. Each pin, repin, like, or comment gives Pinterest tacit permission to contact the user with a notification when someone else contributes to the thread, triggering the desire to visit the site again to learn more.
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## Storing Value

The stored value users put into the product increases the likelihood they will use it again in the future

## Content

With continued investment, the service gets better at learning users' tastes and provides tailor-made suggestions.

The collection of memories and experiences, in aggregate, becomes more valuable over time and the service becomes harder to leave as users' personal investment in the site grows.

## Data

Information generated, collected, or created by users (e.g., songs, photos, or news clippings) are examples of stored value in the form of content.

## Followers

Investing in following the right people increases the value of the product by displaying more relevant and interesting content in each user's Twitter feed. It also tells Twitter a lot about its users, which in turn improves the service overall.

## Reputation

Reputation makes users, both buyers and sellers, more likely to stick with whichever service they have invested their efforts in to maintain a high-quality score

## Skill

Investing time and effort into learning to use a product is a form of investment and stored value. Once users have invested the effort to acquire a skill, they are less likely to switch to a competing product.

# Habit Testing

**Studying your own needs can lead to remarkable discoveries and new ideas because the designer always has a direct line to at least one user: him- or herself.**

Does your users' internal trigger frequently prompt them to action?

Is your external trigger cueing them when they are most likely to act?

Is your design simple enough to make taking the action easy?

Does the reward satisfy your users' need while leaving them wanting more?

Do your users invest a bit of work in the product, storing value to improve the experience with use and loading the next trigger?

## Identify

"Who are the product's habitual users?" Remember, the more frequently your product is used, the more likely it is to form a user habit.

Define what it means to be a devoted user. How often "should" one use your product?

## Codify

codify the steps they took using your product to understand what hooked them.

You are looking for a Habit Path—a series of similar actions shared by your most loyal users.

The goal of finding the Habit Path is to determine which of these steps is critical for creating devoted users so that you can modify the experience to encourage this behavior.

## Modify

Identify ways to nudge new users down the same Habit Path taken by devotees.

Wherever new technologies suddenly make a behavior easier, new possibilities are born. Identifying areas where a new technology makes cycling through the Hooked Model faster, more frequent, or more rewarding provides fertile ground for developing new habit-forming products.

Manipulation Matrix - Facilitator, Peddler, Entertainer, Dealer

Manipulation Matrix		
<i>Materially improves the user's life</i>	<b>Peddler</b>	<b>Facilitator</b>
<i>Does not improve the user's life</i>	<b>Dealer</b>	<b>Entertainer</b>
	<i>The maker does not use it</i>	<i>The maker uses it</i>

Facilitators use their own product and believe it can materially improve people's lives. They have the highest chance of success because they most closely understand the needs of their users.

Peddlers tend to lack the empathy and insights needed to create something users truly want. Often the peddler's project results in a time-wasting failure because the designers did not fully understand their users. As a result, no one finds the product useful.

Art is often fleeting; products that form habits around entertainment tend to fade quickly from users' lives.

## Question to use

What habits does your business model require?

What problem are users turning to your product to solve?

How do users currently solve that problem and why does it need a solution?

How frequently do you expect users to engage with your product once they are habituated?

What user behavior do you want to make into a habit?

Ask yourself what pain these habits solve and what the user might be feeling right before one of these actions.

What would your users want to achieve by using your solution?

Where and when will they use it?

What emotions influence their use and will trigger them to action?

**Why #1:** Why would Julie want to use e-mail?

**Answer:** So she can send and receive messages.

**Why #2:** Why would she want to do that?

**Answer:** Because she wants to share and receive information quickly.

**Why #3:** Why does she want to do that?

**Answer:** To know what's going on in the lives of her coworkers, friends, and family.

**Why #4:** Why does she need to know that?

**Answer:** To know if someone needs her.

**Why #5:** Why would she care about that?

**Answer:** She fears being out of the loop.

Who is your product's user?

What is the user doing right before your intended habit?

Come up with three internal triggers that could cue your user to action.

Which internal trigger does your user experience most frequently?

Finish this brief narrative using the most frequent internal trigger and the habit you are designing: "Every time the user (internal trigger), he/she (first action of intended habit)."

Refer back to the question about what the user is doing right before the first action of the habit.

What might be places and times to send an external trigger?

How can you couple an external trigger as closely as possible to when the user's internal trigger fires?

Think of at least three conventional ways to trigger your user with current technology (e-mails, notifications, text messages, etc.). Then stretch yourself to come up with at least three crazy or currently impossible ideas for ways to trigger your user (wearable computers, biometric sensors, carrier pigeons, etc.).

Walk through the path your users would take to use your product or service, beginning from the time they feel their internal trigger to the point where they receive their expected outcome. How many steps does it take before users obtain the reward they came for?

How does this process compare with the simplicity of other products?

How does it compare with competing products and services?

Which resources are limiting your users' ability to accomplish the tasks that will become habits?

Speak with five of your customers in an open-ended interview to identify what they find enjoyable or encouraging about using your product. Are there any moments of delight or surprise?

Is there anything they find particularly satisfying about using the product?

Review the steps your customer takes to use your product or service habitually. What outcome (reward) alleviates the user's pain?

Is the reward fulfilling, yet leaves the user wanting more?

What "bit of work" are your users doing to increase their likelihood of returning?

Identify how long it takes for a "loaded trigger" to reengage your users. How can you reduce the delay to shorten time spent cycling through the Hook?

What do users really want?

What pain is your product relieving? (Internal trigger)

What brings users to your service? (External trigger)

What is the simplest action users take in anticipation of reward, and how can you simplify your product to make this action easier? (Action)

Are users fulfilled by the reward yet left wanting more? (Variable reward)

What "bit of work" do users invest in your product? Does it load the next trigger and store value to improve the product with use? (Investment)

Be aware of your behaviors and emotions for the next week as you use everyday products. Ask yourself:

- What triggered me to use these products?
- Was I prompted externally or through internal means?
- Am I using these products as intended?

## Books

Something Really New: Three Simple Steps to Creating Truly Innovative Products,<sup>4</sup> author  
Denis J. Hauptly