



APPTIMIZE

Nir Eyal's hooked  
model in action

**Examples of apps  
made habit-forming.**

# Table of Contents

Introduction

A Brief Overview of The Hooked Model

Whole Foods

Bank of America

Conclusion

## Introduction

If you've lived in the same home for a few years, there's a good chance your kitchen harbors some highly specific gadgets you never end up using—thingamabobs like the olive pitter, the mandoline, and that perennial favorite: the pasta maker.

Oh, they all seemed useful at first—how *do* you get the pit out of an olive? But because you don't need them very often, you stash them deep in the recesses of your kitchen. Sometimes you forget you even own them until it's time to move.

Apps are like kitchen gadgets. If your users don't make a habit of using them, they're not going to play a very important role in their lives. And when the time comes to clear out their storage, your app will be the first to go.

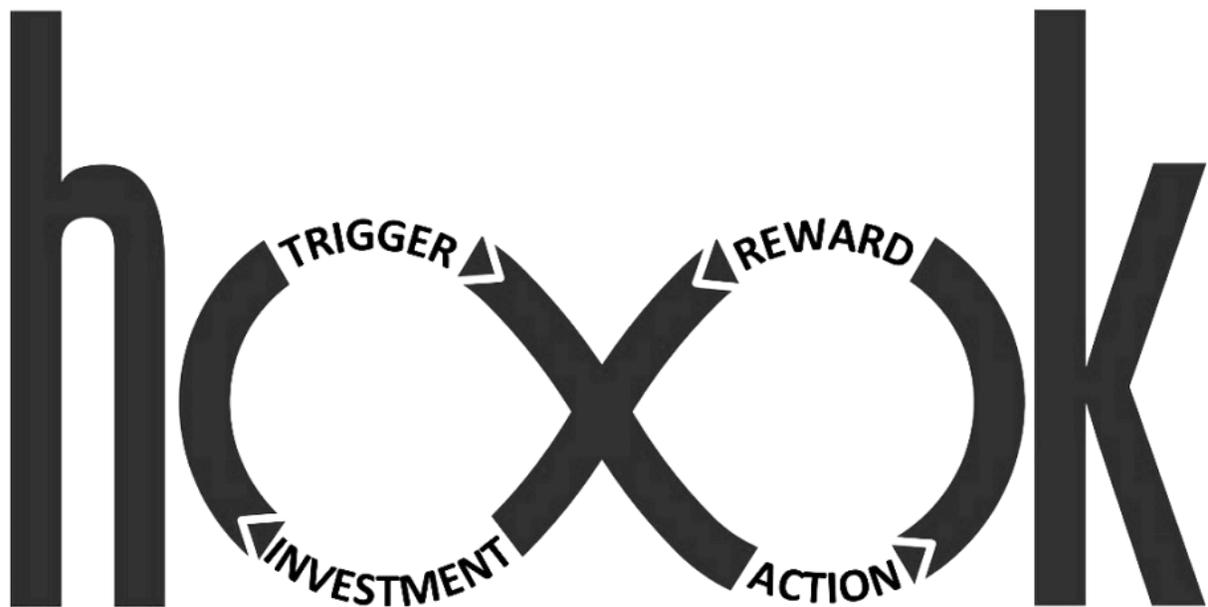
Mobile teams are waking up to the fact that mobile adoption isn't enough. If they're not finding ways to keep new users engaged *with habit-forming regularity*, their apps will eventually be relegated to the back of the virtual kitchen drawer.

*DISCLAIMER: Any screenshots of apps featured in this document are publicly accessible and are reproduced here for commentary and educational purposes under fair use guidelines. Each screenshot includes a source with a link to the website or a link to the App Store/Google Play page of the app. Inclusion in this document does not imply an endorsement of Apptimize by the featured apps.*

## A Brief Overview of The Hooked Model

Users retention is where the real value lies for companies who want to achieve sustainable growth. In addition to accelerating the growth of Monthly Active Users (MAUs), creating an app that users turn to again and again throughout their week without thinking is key to increasing the lifetime value of these users.

With so much competition, apps need to be habit-forming to be truly successful.



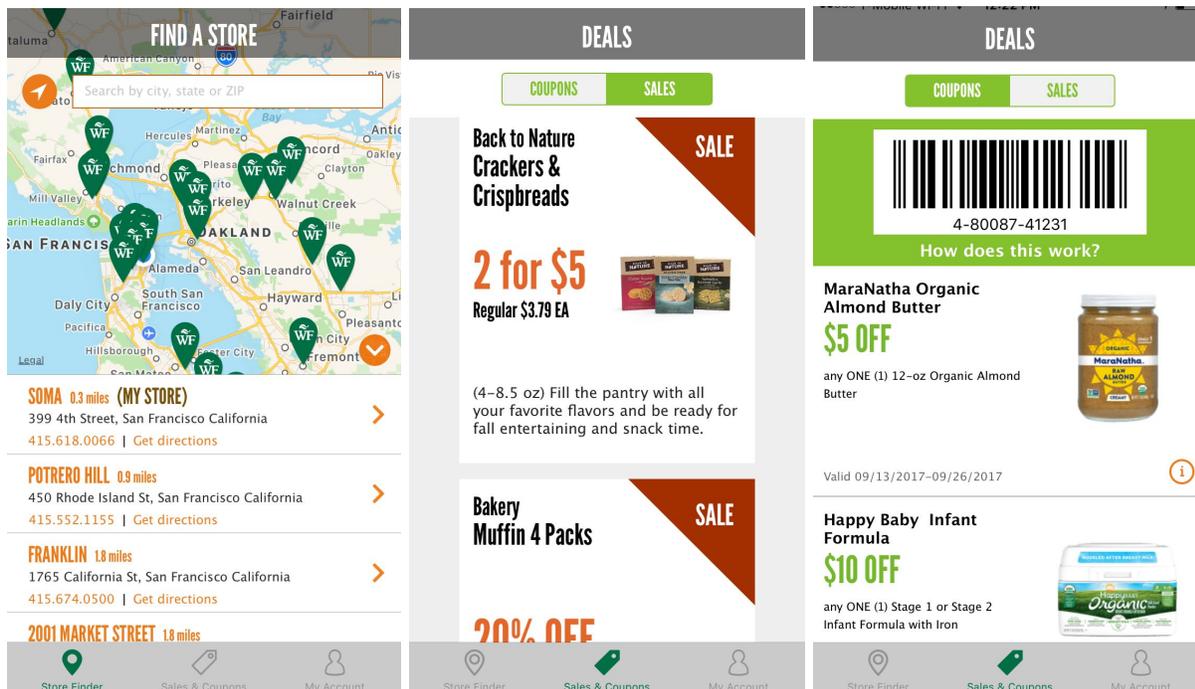
The [‘Hooked Model,’ developed by Nir Eyal](#), is a four-step process built on basic principles of behavioral psychology that can be used to build habit-forming apps. To bring back users over and over again, apps (or any product) need to take those users through the Hooked Model repeatedly until a habit is formed. Here’s what that hook cycle looks like:

- 1. Trigger.** There are external triggers that prompt users into action. Think of a notification on your phone that prompts you to open your app or an alarm clock. Then, there are internal triggers that spur action. These come from within the mind and are linked to emotions, behaviors, and pre-existing routines. If a company can connect its app with some internal triggers, they can plant the seed of habit-forming behavior.
- 2. Action.** This is the behavior that results from experiencing a trigger. For example, you check the notification on your phone to relieve the itch of wondering what you'll discover in your inbox. For an app to become habit-forming, it should offer little resistance to performing the action that results in a reward.
- 3. Variable Reward.** The reward of checking your email is not predictable. You never know what game-changing messages you'll find in your inbox. This 'surprise' factor is called 'variable reward' and it's why people are habituated to checking their email. Work the same concept into your app and it can become just as habit-forming.
- 4. Investment.** If a user's journey through the cycle gets better with each use, they'll be more apt to enter more cycles, thereby increasing the odds of forming a habit. When users 'invest' in the app you've completed the Hook. They can invest time, personal data, social capital, or even money. Then the next go-round will be even more personalized, more helpful, or more efficient.

Next are two examples of well-known apps that are very useful but likely not habit-forming. We've given the 'Hooked' treatment to each app, in hopes of creating an even better product—one that connects users' problems and innermost emotional triggers to the habit-forming solutions provided by each app. While these are only ideas, they serve as examples of the types of things that product teams can consider to create habit-forming products.

## Example #1: Whole Foods

The Whole Foods App is useful, but only in the store. It offers the usual round of coupons, sales, and store locations, but that's where it stops.



That's a shame since this brand has already achieved 'lifestyle brand' status due to a strong set of core values that resonate with their customer base<sup>1</sup>. The Whole Foods brand touches remote corners of consumer lives far beyond organic food items and fancy natural soaps.

*"Whole Foods has successfully communicated to customers that, if you care about your health, you will shop with us"*

<sup>1</sup> Whole Foods Annual 10-K Report retrieved 9/21/17 from [http://www.wholefoodsmarket.com/sites/default/files/media/Global/Company%20Info/PDFs/WFM\\_2012\\_10K.pdf](http://www.wholefoodsmarket.com/sites/default/files/media/Global/Company%20Info/PDFs/WFM_2012_10K.pdf)

- Doug Rauch, former President of Trader Joe's<sup>2</sup>

Clearly, Whole Foods already has an association with healthiness, so why not make their app a total resource for well-being? To maintain the healthy lifestyle they've chosen, these Whole Foods shoppers encounter a daily barrage of questions and decisions in both their normal routines and when they travel... Are potatoes really that bad for me? Is my air freshener making my kids sick? Is it safe to take a multivitamin?

It's hard work maintaining a healthy lifestyle. So many decisions... the psychological itch that needs satisfying here is the wondering whether you're doing the right thing for your health, the environment, and your family.

To scratch that itch, the app could be synced with the Whole Foods list of [Unacceptable Ingredients for Food](#) and the [Environmental Working Group's \(EWG\) Skindeep® cosmetics database](#) for beauty product research. That way, users can tap into useful information any time they're wondering about the safety of the products they buy.

Based on the 'Hooked' model, here's how that might play out.

**Trigger** For Whole Foods, the trigger is the innate fear of causing harm to yourself or your family by purchasing and using harmful products. The app could provide relief by supplying instant answers to those niggling questions like those mentioned earlier.

**Action** Tap the barcode reader that's available through the Whole Foods app. It's available through the launch screen so it's fast and easy to access. It's connected to the Whole Foods list of Unacceptable Ingredients for Food as well as EWG's Cosmetics Database.

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<sup>2</sup> *Whole Foods bags customers and profits* Retrieved 9/21/17 from <http://www.marketwatch.com/story/whole-foods-bags-customers-and-profits-2012-01-17>

**Reward** Here's where the concerned Whole Foods consumer gets her relief. When shopping outside her comfort zone (Whole Foods Market), scanning and checking items with her Whole Foods app eases her qualms about unsafe products. Even when not shopping, the user will find it useful for finding out more about potentially harmful ingredients in food and beauty products.

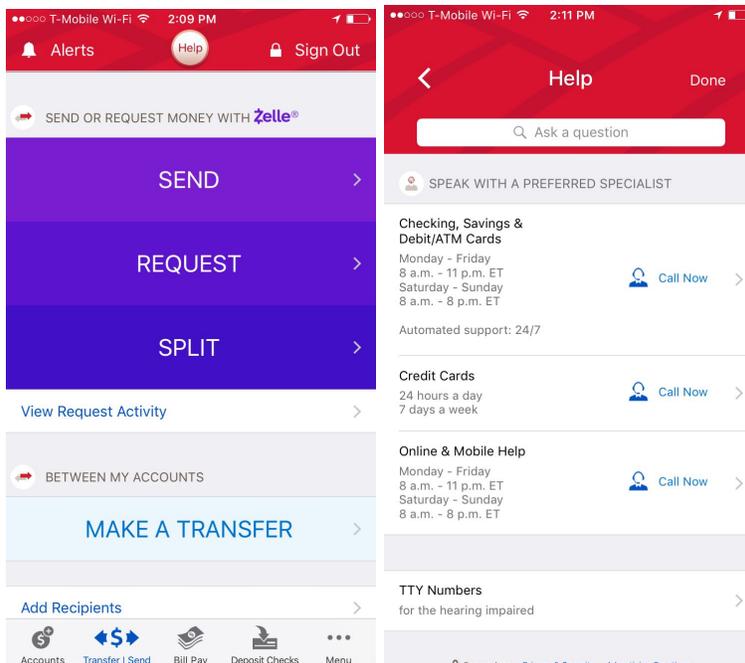
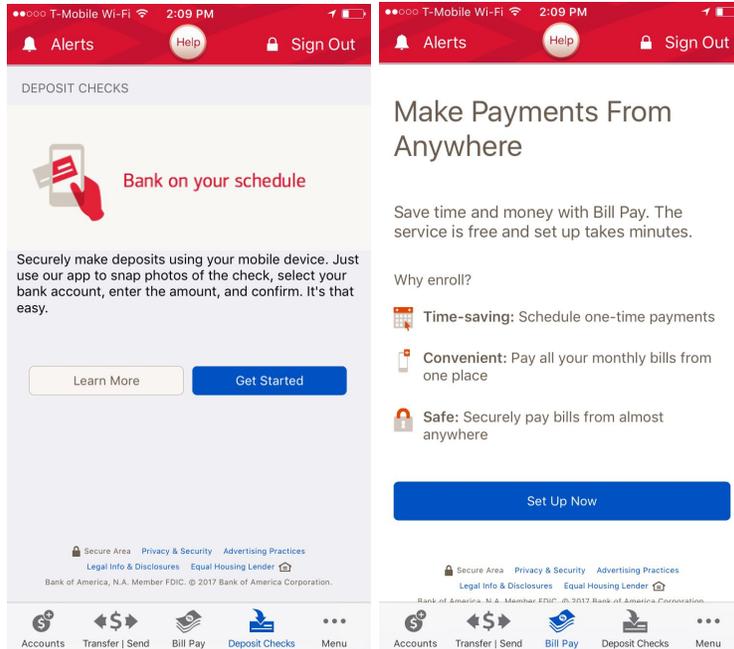
Using the app to quickly scan and check items she's about to buy, the user can rest assured that she's not poisoning herself or her family.

**Investment** What the user puts into the Whole Foods app could improve service. Every time our fearful consumer enters a product barcode, the Whole Foods data machine gobbles up information about her shopping habits. Applying a bit of machine learning to the amassed data can reveal insights that could lead to helpful, individualized in-app prompts for each user.

The more she uses the barcode scanner, the more the app learns about her personal preferences. That means Whole Foods can deliver helpful content at the right time and in the right place.

## Example #2: Bank of America

Great for making mobile deposits, paying bills, and sending or requesting money, the Bank of America app also provides direct access to phone-enabled customer service. Users can contact a live person without going through the automated system offered through the generic Bank of America phone numbers found online.



As useful as it is for traditional financial transactions, the app is not set up for personal finance. The reality for a lot of people is that financial transactions happen all day long. That creates quite an itch: fear of diminishing material wealth. It's the worrisome idea that we're slowly committing financial suicide

with one small purchase after another.

Let's make the Bank of America app habit-forming.

To insert the app into the routine of daily living, let's have the user create a budget and set daily spending limits. When the app logs a charge, it subtracts the amount from a pre-set daily spending limit and lets the user know how much he has left for the day. Here's what's 'Hooked' about it:

**Trigger** The external trigger would be the action of pulling out your wallet to pay for something. The internal trigger would be the insecure feeling we get whenever we spend money. Or maybe for some users it would be the opposite, "How much more money can I spend?"

**Action** To get relief from their insecurity about overspending, users could tap their BoA app. They'd get instant reassurance (or a warning) about their spending, allowing them to map out their purchases for the rest of the day.

**Reward** The reward is knowing, with confidence, that you are spending appropriately and that you have control over your finances. Imagine carefree purchasing of lattes until the app tells you that you're near your daily spending limit.

Plus, we've got some 'variable rewards' built in. *'Am I close to my daily limit?', 'Will I still have enough for sushi tonight?', 'If I hold off on the lunchtime shopping spree, maybe I can actually afford a quick weekend trip somewhere exciting.'*

The rewards don't have to stop there. Consider the following ideas. These take cues from gamification but set in the context of achieving a long-term goal, offer a longer scope of purpose than the typical instant gratification high-fives offered by other apps:

1. Imagine a reward bot that congratulates you on progress toward a big goal (*'you're halfway there to getting that Prada bag!'*)
2. Users could get badges on days they under-spend
3. The app could offer challenges, where, if the user under-spends for

five days in a row, they get a badge

4. Through the accumulation of badges and money, users could unlock advanced features, which is where the 'investment' phase of the Hooked Model comes in...

**Investment** Users will need to first calculate, then enter their daily spending goals. Beyond that, there are lots of ways to get more deeply involved:

1. Advanced users could raise their spending limits on the weekends
2. They could then make up for the extra spending by lowering the limits on Monday and Tuesday
3. They could also alter their daily limits according to upcoming spending goals such as vacations or large-ticket items they'd like to purchase

Showing progress towards goals 'loads the next trigger' and the Hooked cycle continues.

## Conclusion

These ideas for habit-forming apps are, at this point, only conceptual. Until the concepts are developed and tested on actual users, we'll never know how well they work to improve engagement and user retention, and ultimately revenue.

By testing different iterations of the features against clear controls, mobile product teams can gain real insight instead of guessing which changes *could* make the apps more habit-forming.

Even once the right tweaks have been made after the first round of testing, you can always do better. While the 'Hooked' model can work to make your app more engaging, you'll need to take the right approach to make it work and make continuous improvements. The 'Hooked' approach, when bolstered by healthy, regular doses of A/B testing, should keep your business's app out of that remote kitchen drawer of one-use gadgets that never get used.

## *ABOUT APPTIMIZE*

Apptimize empowers product teams to efficiently run A/B tests, roll out and manage new features, and deliver personalized user experiences. Based in San Francisco, Apptimize is backed by US Venture Partners, Google Ventures, Y Combinator, and others.

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