

Andrew: This session is about how to form habit-forming products, how to create habit-forming products. And the session is led by that man over there, Nir Eyal. He's the author of "Hooked", the book on how to form habit-forming products. Nir Eyal is also the creator of Habit Summit, a gathering of people who share information about how to form personal habits and form technology habits. And if you go over to the website, [habitsummit.com](http://habitsummit.com), you can see all these great speakers who will be at the event.

My name is Andrew Warner. I'm the founder of Mixergy. I'll help facilitate. And Nir, thanks for teaching us.

Nir: Thank you so much for letting me be here, Andrew. It's a pleasure.

Andrew: You bet. Nir, the problem that you're trying to solve is one that .... Let me bring up this gentleman right here. This is Bobby. Am I pronouncing his last name right, Greenwald?

Nir: Greenwald.

Andrew: Greenwald. Oh, okay. So Bobby Greenwald had an issue. What is that he ... What app did he create?

Nir: Well he created the world's largest Bible reading app. There's many versions of the Bible online in the app store. And Bobby's app not only was one of the first Bible apps. In fact, he started the company as a website. But his challenge was he wanted to help people do something they wanted to do anyway which was read the Bible daily, to make a habit out of the Bible. And what he found was is that people were having a very difficult time making a habit out of reading the Bible. It's something they wanted to do with all their best intentions but had a lot of trouble making it into a habit.

Andrew. Okay. And because he followed this process that you're going to be describing to us, what happened with this Bible app that he created?

Nir: Yes. Well to correct slightly, he didn't actually follow this process because it didn't exist. But his ....

Andrew: I'm not saying he followed because you told him it. But what I'm understanding from reading your book is you analyzed the process that Instagram went through, that Pinterest used, that even Coca-Cola, to some degree, used. And you said, "Here. I'm not inventing something brand new that never existed before" and telling the world, "Try it." You're noticing what's working and making sense of it and giving us a framework so that we can use it. Am I right?

Nir: That's exactly right.

Andrew: Okay. So now, because he did this, what happened to him with this Bible app? I tend not to think of Bible apps as being tremendously successful except that maybe some people who are into the Bible like it. So what happened to him from a business perspective?

Nir: Yes. So his app is one of the most successful apps in the world in fact. He has over 100 million downloads of the Bible. It's not really a business. He doesn't intend to make money from it. It's owned by a church. And his app is touching hundreds of millions of people's lives and the engagement is tremendous. And he's really been successful in helping people do something they wanted to do anyway which in his case, was read the Bible.

Andrew. Alright. And that's exactly what I want for us. Not necessarily to read the Bible, but if you want it, of course, go on and read the Bible. But my goal for this audience is to say, "What did Bobby do? What did all of these companies do that we can do to make our stuff more habit-forming, more engaging, more repetitive?"

And so, I did my best to pull some of the ideas from your book that we can share with our audience here and give them the process. And here's one of the first things that you say, "Create an external trigger." And I mentioned earlier Coca-Cola. I think this was going to be one of the only offline companies that we'll talk about here in this session. But I want to understand, how is this an external trigger that we should learn from?

Nir: Yes. So external triggers, by definition, are things that give the user information for what to do next where the information itself is contained in the trigger. So in this case, we can learn from Coca-Cola when we ask ourselves, "How is the coke machine telling the user what to do next?" Well, there's a few things. If you look carefully, it says, "Thirsty" there on the machine. And of course, people have certain associations with the Coke brand. But if you look even a little closer, you'll see that in that picture there on the top right of the machine, there's actually a picture of a person giving you a coke, right? That man is handing you a coke.

So it's pretty explicit there what the next action that the user should take. So external triggers are all around us. There all these things in our environment that give the user information for what to do next. So calls to action on a website, click here, download now, buy this, all these queue to do the next intended action. Even things in the physical world like a police officer directing traffic or your friend giving you a piece of advice about great new app that they've downloaded. All these these things are examples of external triggers.

Andrew: Give me another example of an Internet company. How about Mint.com as a company that you've looked at? What does Mint.com do to create an external trigger that we can learn?

Nir: Sure. So some things that they do is to send notifications so that when you have certain things occurring in your account, when they need to tell you something has happened and they want you back to the app, they'll send you notifications. We receive them all the time on our phones. We get these little notifications that either push information to us or through a little jewel icon tell us we need to re-engage.

Andrew: Okay. Let me speak to the audience right now and say, guys, I know we're not blowing your minds yet. The problem though I see it in here. You correct if I'm

wrong. The problem is that most of us do that, but then we stop right there. We have the external action that's the external trigger that says come to my site. Maybe, it's an ad. Maybe, it's email. Maybe, it's something else. And then we maybe stop, but what you're going to do is show us how that can be the beginning of a cycle that creates a habit. Am I right?

Nir: That's exactly right. And so what I want to kind of tease the audience with is that we're going to show you how to get to the promised land of what I call an internal trigger, an association with... a trigger that queues action just as reliably as that call to action, as that click here now button. However, the difference with an internal trigger is that the information for what's due next is stored as an association in the user's mind.

Andrew: Okay.

Nir: And that's the promised land. To form a habit, we want to figure out how we can create those associations, and that's what we're going to do through successive cycles, through what I call the hook model.

Andrew: Okay. I intentionally picked Coca-Cola in the beginning to show that this doesn't just apply to apps on phones and doesn't just apply to web apps and software. Does it also apply beyond and maybe this is something we can answer and show examples of later on in this session. But does it apply to blogs? Does it apply to furniture? Does it apply to other things or are we just talking about ideas that can be narrowly focused on software?

Nir: Yes. So things that have repeat engagement, what I call unprompted user engagement. By that I mean users picking up a product and engaging with that product without a lot of conscious thought. That's really the definition of habit, behaviors with little or no conscious thought. And we should say as kind of a disclaimer here, not every product needs habits.

There are plenty of businesses out there that do wonderful work that are very profitable that don't need habits. However, when we look at kind of these companies that epitomize habit-forming technology, the usual suspects of Facebook and Twitter and Instagram and Pinterest and Snapchat. These companies that profoundly change people's day to day behaviors, those companies' business models can't survive without habits.

Andrew: Okay. Okay. Alright. Let's go on, speaking of the social media companies, let's take a look at the next big idea, which is we've created the external trigger. Now we want to get the user to take action. You mentioned Twitter so I'm going to bring up another screen shot that I just copied shamelessly right out of your book. But I think it's important. Tell me about this. How is this now an external... What is Twitter doing here that we should learn from?

Nir: Sure. The intended action here for Twitter, in this case, is to have people tweet the article. So in this case if I'm on the Wall Street Journal's All Things D and I decide to share a piece of content, by making that Twitter button so easy to use and that all I have to do is push the button. It's pre-loaded a piece of text here for me.

They've made the action very, very simple.

So that's really the basis of the principle of the action phase of the hook model, which is what's the simplest behavior that you can take in anticipation of reward. How can we design an experience for the user that is as simple as possible for them to do?

Andrew: That's why you're showing the pre-populated tweet. It's not just make it easy for people to tweet, it's we're going to make it so simple that we've even pre-populated it. Can you give me a few other examples? What else is an action that we can learn from here and see what you're talking about?

Nir: Sure. So another example might be every time I want to take a picture with my iPhone, they've done something very nice where they know that people take pictures with their phone quite frequently. And so they put that little icon of the camera right on the home screen so that with a quick flip I can use the phone's native camera.

Andrew: Okay. Do you have another one of maybe a smaller company, something a little less intimidating than Twitter and Apple, multi-billion dollar brands?

Nir: So I think there's, let's see, I like to look at the companies that are well known brands. But I think that these companies that can make that action as easy as possible and the principle here that I want to impart is that when you think about the history of innovation, really it's all about just contracting the space between the need, the recognized need and the reward.

And that's what the action phase is all about. How do you squeeze that space between the recognition of the need and achieving that reward? So I do care if it's the cotton gin or the iPhone, the action phase across the board, is all about decreasing the time it takes or the effort it takes to do a particular behavior.

Andrew: I see. Actually, I remember talking to the founder of Optimizely who told me that one of the first that they did was that worked really was they put on the homepage just a box where you could put in your URL. And as soon as enter your URL and hit submit, you could automatically start messing around with the site and create a AB test.

So that's what you're telling me to do. Is that just in there for the first action that the user takes? Or are we talking about every interaction with them needs to be about reducing the work that they do? Because it seems what you're about say is, "Increase work."

Nir: There's a sacred cow of interaction design which says that everything has to be easy. And I believe that in a certain phase of the hook model, before the reward is achieved, that's actually true. So in anticipation of the reward, we need to make the behavior as easy to do as possible. And I'm borrowing here from the work of B.J. Fogg [SP] who has this behavior model of B equals MAT. That for any given behavior, we need sufficient motivation, we need the behavior to be easy enough to do, sufficient ability, and a trigger must be present.

So before the reward, it's all about simplicity of the behavior and boosting motivation. Now, we'll get to it in a little bit, because I see the lineup of questions you have there. What we're going to find is that, actually, the right time and place to ask the user to do a little bit of work is after the reward. It's after the user's itch has been scratched. That's when we want to ask the user to, actually, invest in the product.

Andrew: Okay. Let's get into that. But for now, what you're saying is, make it very clear for them to understand what action you're asking them to take. You talked about the button and the emails that mint.com sends out, the thirsty, and the mention of a coke in the coke vending machine. So you want to be very clear about what action you want them to take. Then you want to make it very easy for them to take that first action. You're also saying, give them a .... Actually, let's move on then to the next point.

Nir: Before we go on, it might be helpful to think about this principle of, how can make that behavior simpler? Simple in this big world, but how do you do that? What does it actually take? And so Fogg gives these six factors of ability that is useful for designers to consider which are how much time something takes?

Andrew: Tell me more, because I know you've got this in the book. How much time?

Nir: How much time something takes. So the more time something takes, the less likely it is for that behavior to occur. How much physical is required? If something is physically very difficult to do, it becomes less likely to happen. How much money something costs is another factor that reduces the likelihood of a behavior. And then there's some less factors of ability. For example, cognitive load. This is a big one in technology.

So it turns out that the more difficult something is to understand, the less likely it is for that behavior to occur. So simply making something easier to understand will increase the likelihood of that behavior occurring. Then we have social deviance. So if I see people like me doing a behavior, I become more likely to do it myself. And then finally, and perhaps most importantly in my opinion at least, is non-routine.

So it turns out that the more familiar a behavior is, the easier it becomes. And this isn't rocket science, this principle is called, practice. The more we practice a behavior, the more familiar it becomes to us, it literally becomes easier to do and the user becomes more likely to do it. So what this means is that many times novelty is a liability. And technical people hate when I say that, right? Because isn't technology all about the new thing and these amazing abilities that we can give users to do all this fancy stuff.

But it turns out if the behavior is too different, too weird, too outside the norm, it actually makes it less likely the behavior will occur. So we want to look for ways to prompt that action through interfaces that are familiar to the user as much as possible. Because, again, non-routine decreases the likelihood of a behavior occurring if it's unfamiliar.

Andrew: Okay. On to the next big point. I almost gave this away and gave it away poorly actually. Because this is counterintuitive. The next point is to give them a variable reward. I was about to say, create an external trigger, ask them to take action, and then give them a reward. But you're saying, no, a variable reward. What's the difference between a reward for taking action and giving them a variable reward?

Nir: Yeah. It turns out that with habit-forming technologies to change the habit, this becomes less important over time once the habit is formed, but to change a habit it turns out these habit-forming technologies entice us with some kind of variability.

Andrew: Mm-hmm.

Nir: If you look back at your notes from college if you took Psych 101, you may remember the work of B. F. Skinner and B. F. Skinner, the father of operating conditioning did these studies where he took pigeons and he put them in what today is known as a Skinner Box and originally he gave them a predictive reward. They would click the lever and a food pellet would come out. And what he found was that they would click so many times based on when they were hungry.

But then Skinner did something a little different. He introduced variability, an intermittent reward. The pigeon would click the lever, and nothing would come out. And then the pigeon would click the lever again, and hey something would come out. And it turns out that what worked for pigeons and other lab animals actually works for people, that we find that a bit of mystery, that variability, that bit of guesswork, about what's going to happen actually increases our focus, increases our engagement, and actually can be a driver for new habits.

Andrew: Okay. So let's take a look at how that's done online. How is - let me see if I can zoom in. Core likes to keep their columns really tight. This is a Core search for Mixergy. What are they doing to use this idea that you're pointing out, the variable reward?

Nir: Yeah. So there's a few things going on here and maybe it would be kind of useful to give the broader framework around variable rewards that we see in different products we use. I look at variable rewards in just three types when it comes to products.

Andrew: Mm-hmm.

Nir: We have rewards of the Tribe, rewards of the Hunt, and rewards of the self. Now rewards of the Tribe are all about social reinforcers. So things that feel good, that have an element of mystery, that have an element of variability and come from other people. So when you think about social media at large, there's a tremendous amount of variability associated with social networking.

Now I use Facebook. What am I going to find? What have people posted? How many people will like it? What will the comments be? A whole lot of variability with what I might find every time I log into Facebook.

Andrew: Mm-hmm.

Nir: And so that's also occurring with [??] or Stack Overflow. Several Q&A sites use this element of rewards of the [??].

Andrew: As I scroll through here some of these articles will be interesting. Some of them will be useless to me and boring, and you're telling me that the reward of finding the good one is only valuable or more valuable if there's a couple of clunkers in there.

Nir: It increases our focus. It increases our engagement exactly when we have that variability. It doesn't mean that we should make things more difficult because if the user doesn't find that reward interesting, if scrolling through those pages isn't fun, then we've missed the point.

Andrew: Okay.

Nir: So may we want to use a different reward type. For example, rewards of the Hunt are all about the search for material possessions. So rewards of the Hunt stem from our primal search for food and resources. In the wild, of course, these things have a variable component. There's a lot of variability to that hunt that our ancestors did 200,000 years ago when our species first emerged.

And we see that today translated into rewards that are around money. We don't hunt for our food anymore. We buy it with money. So money is a currency many times that's used to keep us engaged. So when many people think of variable rewards, they think of Las Vegas where gambling, of course, uses this currency of monetary rewards to keep us playing, keep us engaged.

And so what we find translated into the online environment is that information rewards is hunt for information as you described in the feed type of environment. It's very similar so that the slot machine experience is very similar to this scrolling experience, of scrolling and scrolling and searching for that next reward.

Andrew: I see. What about the difference then between this and Maholo which created a Question & Answer site much like Core which we're looking at right here, and Stack Overflow which did very well. Maholo created the same thing except they said, "You know what? These points are good, but let's all let people make money if they give the right answer, they deserve to get some money for it. What's the difference there?"

Nir: So there were a number of factors there. So there's no silver bullet. There was a whole bunch of things that help a business succeed or not succeed. One of the things that I believe didn't work for Maholo [sp] is that the people who are posting answers on Core in the early days weren't motivated or the type of people who were well known, kind of Internet celebrities or prominent VCs weren't incentivized by money. Where Maholo was giving cash for answers, Core had a very effective simple system for giving social recognition.

It was about the value that I was providing to people whose opinions I cared about. And so to those prominent question answerers that became a more important currency. So it's really important to not just sprinkle on variable rewards or gamify the experience blindly, we really want to make sure that the rewards satiate the user's itch, that if we don't align those two things we're bound to fail. It's going to be a meaningless reward.

Andrew: Gotcha. Okay. I get it. Mark Andreessen is not going to be tempted to answer a question so that we can three dollars from someone on the Internet, but he might be and apparently is engaged if you give him social credit on Twitter and other sites. Core, I think, is on there and so on. Alright. I get what you're saying. So not just rewards, variable rewards and not just variable rewards but ones that are connected and make sense to the community. Alright.

Let's move on to the next one. So we said earlier make it easy but now we're saying have the user invest or put value into the product.

Nir: Yeah.

Andrew: What do you mean by that?

Nir: So this is, I think, the area that I think starts to have the most potential for improvement. I think people don't think enough about this area of investment, this fourth step of the model. The investment phase is all about these simple actions that users take to increase the likelihood of the next pass through the hook.

And there's two ways that this works, two ways that investment increases the likelihood of the next pass through the hook. One is by loading the next trigger. So if you think about email, for example. I think email happens to be one of the mothers of habit-forming technology. I don't know about you, but I find myself constantly using email with little or no conscious thought. I've definitely developed a habit, at times a bad habit, around using email.

We can talk about stopping bad habits later on, but when we think about using email, the trigger might be boredom. It could be the internal trigger of some emotion like boredom. The external trigger could be notification that you got a new message. The action, the simplest behavior in anticipation of a reward is to just open the email.

Now the variable reward, let's think a minute. We've got Tribe, Hunt, and [??]. Rewards of the Tribe come from the fact that email is a communication medium. It's what people whose opinions I care about. Hunt, well through email I've got, of course, information rewards. I've also got many times monetary rewards because email is connected to my workplace.

Andrew: Mm-hmm.

Nir: So that becomes an important factor. And then rewards of the self, we didn't get to talk about them. Briefly rewards of the self are all about the things that I do for mastery, consistency, confidence, completion. These are, if you've read the work of

Daniel Pigg who cites Desi and Ryan, their work on self-determination theory, it turns out that we're highly driven by the search for mastery, consistency, competency, control.

So every time I flip through those unread messages I complete this task. I finish something that, of course, has its variability of this constant stream of new emails. That's rewards of the self.

Now let's think about the investment phase. What's the thing that I do with email that makes me more likely to use it in the future? Well, when I send a message to somebody, I'm loading the next trigger. I don't get it, points and badges if I send an email. There's no immediate gratification in sending an email.

Andrew: Mm-hmm.

Nir: I do that in anticipation of a future reward, and the more I do that the more likely that I am to use that system in the future. And by the email, I use email but if you think of an app like MessageMe or WhatsApp or an SMS service all of these systems use the same type of investment because every time the user sends a message they're loading the next trigger to use it in the future when someone replies to them.

Andrew: Here's another example that's not communication. It comes out of your book. This is iTunes. How is software like iTunes using that?

Nir: Okay. Great. So we talked about the first way that investments load the next trigger. This is an example of the second way that investments increase the likelihood of the next pass which is by storing value. Now storing value, I think, is really exciting, and to me it's one of the reasons I love working in technology so much because if you think about things that are made out of atoms, things in the physical world. Your chairs, your iPhone, your computer, your furniture, all these things depreciate with time. They lose value the more we use them.

However, habit forming technology, by getting users to invest in the product, should appreciate. They should get better with use. That happens through this process of what I call Stored Value. In the iTunes case here, every time the user adds content to iTunes, they're improving the service. They're increasing the likelihood of them using the service in the future because it becomes their one and only music library.

Other examples of open content might be data. The more data I give a site like Pinterest, for example, by pinning and repin, I'm literally changing the way that site looks just for me. If you were to log into my site, Andrew, and you log into Pinterest or my Facebook, it wouldn't mean anything to you because it's been customized just for me by storing value. There are a couple of other ways that stored value that can increase the likelihood of the next pass in the hook.

Andrew: I know that every time that I use Netflix and rate it, I feel like I'm suckering myself into never being able to leave Netflix because now all my ratings are there. If I go start somewhere else, it's not there. I have to start all over.

Let's take an off line example just to show another way that this works. Ikea. Look at this. This is all the different people who have posted their instructions from Ikea on the web. How is Ikea doing this?

Nir: Yeah, so this comes out of some work that Dan Ariely did. He's a professor at Duke and wrote a great book called "Predictably Irrational" as well as some other books. He's a behavioral economist who dubbed this effect that some products have on us whereby when we invest work, when we invest labor into something, it turns out that we love it more. We gain an affinity for it. He calls this the Ikea Effect.

Andrew: It's in Wikipedia here. I don't think that people can see it, but the Ikea Effect.

Nir: Yeah, it turns out that we have, as you can see there, a cognitive bias towards things that we put effort into. That's what the investment phase is partially about. The more people put something of value, a bit of time, effort, money, something of value into a service, it turns out we psychologically value it a bit more. Through successive cycles, through the hook, we tend to build up a lot of investment in these products.

Andrew: I see, so the first action needs to be super simple to get them engaged and to give them a variable reward, but later on you do want them to invest, to spend time, to make it their own. The more they do that, the more hooked they are into the product.

Nir: That's part of it. Through these rapid cycles through the Hook Model, you're exactly right. By getting users to invest... That actually kind of goes against the pedagogy of everything needs to be simple, that I told you about in the action phase. If you ask any designer today, they'll tell you that sites need to be "slicky," that everything needs to be getting users to check out as quickly as possible.

I'm telling you that actually checking in is more important than checking out -- that sometimes you want users to engage with the service, add something of value, invest in that service, and that will increase their likelihood of coming back to use the service in the future.

Andrew: This, Nir, is one of the reasons why I love the book. I said at the top that it's easy for someone to see the first section of our conversation here about creating an external trigger and say, "I know all this stuff," and move on.

What we don't realize is that until we get deeper into your work and really get to understand it, so much of what hooks us into the products we love is counter-intuitive. It's not what we'd originally expect.

Let's move on to the next one. We talked about external triggers. Now we've created a cycle which I'll show a screen shot of in a moment, but I want to understand what you said earlier. You said we go from external triggers where the product has to advertise, the product has to send the message out, to internal triggers.

You give an example of someone in your book who you named Yin who is a student at Stanford, and she has these internal triggers with Instagram. What is an internal trigger, and how does Yin have that?

Nir: We all have these internal triggers. Internal triggers I think is an area that I think product designers don't think about nearly enough. It turns out to get to this Promised Land of forming a habit, we don't create the internal triggers. The internal triggers are already there.

What we're going is creating an association with that internal trigger so that every time a user feels this internal trigger, and it's said to be either emotions, routines, situations, certain places or people, every time they experience that internal trigger, they're prompted with doing the next action. They do the net intended behavior.

These internal triggers are things that we feel throughout our day to day lives, and it turns out that some of the most powerful internal triggers, that just as reliably queue our next action, come from emotions. So what we do when we feel bored, or lonesome, or fearful, or lost, or uncertain. What we do when we feel these negative emotions just as reliably queues our next action as that big honking "Call to Action" button that we're all so familiar with as an external trigger.

Andrew: I'm not trying to get the person to feel a sense of loneliness and use it. You're saying I am supposed to understand that they have these feelings, and connect my product to them.

Nir: Yes, that's absolutely right. So what we are doing here is not creating pain, God forbid. We are solving pain. Creating pain, that's not my forte, I don't want to get people to do anything they don't want to do. What we want to figure out how to do, is how to look for people's existing pain points, i.e. their internal triggers, and find a solution to that problem.

That's, in a nutshell, what the Hook model is all about, is connecting your user's problem to your solution with enough frequency to form a habit. That promised land starts with figuring out what's the itch that you're going to scratch. What's the emotional need that your product is serving for the user?

Andrew: So then, what is the emotional need that leads to this? I see tons of food photos up on Instagram, and it's not because Instagram is emailing people daily and saying, "Take a picture of your food, take a picture of your food!" What internally do you think is going on, that Instagram connected to, that is leading to that?

Nir: Absolutely, yeah. So, it's interesting because you remember, the definition of the external triggers was something for the information for what to do next was in the trigger. In the case that you saw, you know that plate of food wasn't crying out, "Andrew, take a picture of me with Instagram," right? That would be pretty amazing, but that's not what happens.

What happens is people see something they want to capture, they want to hold onto, that in fact they fear losing. The solution to that fear of losing that moment is

Instagram. So Instagram wins, because they've created an association with a particular moment in time. Now you may think about, well, actually that sounds familiar, right? This talk of moments probably is ringing some bells with another company, that about 20, 30 years ago also owned the moment. Of course I'm referring to Kodak. The Kodak Moment.

You remember these commercials, right, where they'd have the puppy dog running through the grass, and the kids playing outside, and grandma blowing out maybe her last birthday candles. You remember these ads, right? So what Kodak was doing over the span of about 100 years and billions of dollars, was to create those associations with internal triggers. That when I see this moment, I fear losing it, and I capture it with Kodak.

Now Instagram, to their credit, did the same thing. They created that association with these internal triggers, of this fear of losing the moment, but they did it by having users teach other users what the Instagram moment is all about. Now, Instagram's also much more than just a way to capture photos, right? It's not just about picture taking, it's also a social network.

So the more times users went through this hook of trigger, action, reward, and investment, they started to figure out that, "Wait, actually, Instagram can also solve these other internal triggers I have!" So when I'm bored or lonesome, or fomo. You know what fomo is, right? Fear of missing...

Andrew: Fear of missing out?

Nir: Yeah, exactly! Fear of missing out is painful. It doesn't feel good. That's a user problem. And whenever I feel this fear of missing out, Instagram is my solution.

Andrew: Gotcha. Alright, I see it. We need to figure out what our users are already experiencing internally, and then connect our product to it.

Nir: Exactly.

Andrew: Let's go on, then, to the final point that I've got up here on the board, if I can get it up there. There it is. Final one is repeat, and I'm actually going to show the hook model that you show earlier in the book. This is what you want us to keep going through, keep cycling through this, is that right?

Nir: That's right, yeah.

Andrew: So we always start with an external trigger, I imagine. Then we get the user to take a simple action, then we give them a variable reward, then we ask them to make an investment, then we hopefully are at a place where they're internally triggered and continue, continue, continue. Companies that don't get that internal trigger keep sending out too much email. Companies that don't figure out the reward, what happens if you don't figure out the reward? People don't come back?

Nir: Every company has their own opportunity for improvement, let's say. If they

haven't formed the habit, then there's usually one part of the hook that's not working for them, in some way or the other. They haven't figured out a way to show effective external triggers, or the action is too difficult, or the variable reward isn't actually scratching the user's itch, or the investment doesn't bring the user back by loading the next trigger or storing value. So it's very contextually specific to each individual business which part of the Hook Model may be lacking in their particular case.

We know a few things. One, that frequency matters. The more frequently users can go through this cycle, the more likely they are to form a habit. When I say frequency, it turns out the research is telling us that within the span of a week's time or less -- that seems to be this crucial tipping point where if we can't get the user to do something to engage with our product within the span a week's time or less -- we got a problem.

When you think about the products that we think of as most habit forming, Twitter and Facebook and Instagram and Snapchat, these are intra-day behaviors. We do them multiple times per day. That's one point is the frequency of behavior.

The second is the speed in which we go through these four steps. If there's a huge gap between a trigger and the action or the action and the reward, we have a problem. We want these things to happen as quickly as possible, the speed with which users go through the Hook Model.

Andrew: Can we get an overview of this whole process that you just described using an example? Maybe the example that we started this conversation with, the Bible App. Would that work?

Nir: Sure, we could do that.

Andrew: The original external trigger might have been what?

Nir: Let me just differentiate that there's on-boarding, by the way, which some companies can actually make the on-boarding of their product part of the Hook Model. In fact, Twitter does this. To some degree, Pinterest does this. I think, also, the Bible App does.

But many companies actually just...Before people get scared, on-boarding can be its own separate experience. The Hook Model is not really so much of a growth, which is where I would bucket on-boarding. It's really that engagement.

In the Bible App case, the external trigger would be somebody telling another person about the app. It's a word-of-mouth product. Or within the Bible App, you can actually share to Twitter and Facebook. Many people find out about it through this external trigger of seeing something in their feed.

The action would be to open the app once you've been on board it and you've installed it. To open the app becomes the action. The variable reward is what you'll find. Within the app, there's actually, surprisingly, quite a bit of variability because you're on a reading plan.

What Bobby figured out in his development of the Bible App, was that just giving people the entire Bible to read -- too difficult. It's just too hard. What he started to do was to create these reading plans which made the action of opening the app and getting to see what verse you should read today became variable, became more interesting. There was this hunt for information around, "What's the verse that's going to mean something to me today?" For people who are developed, that's actually pretty interesting.

The investment phase comes down to checking. He has this system that he's built of checking what you've read for that day. You're checking off that you've done your daily reading for that day. That, of course, increases the likelihood of the next pass. Because every time you've checked that you're done with something, that's got the variable reward of the self, this completion mechanic.

You're investing in the future because now the app has the opportunity to trigger you, to send you an external trigger that says, "You've finished Section A. Now it's time to move on the Section B." They've loaded the next trigger with every investment.

Andrew: So there we have it. Let me bring it back up on the screen. It's very simple. I'd like the audience to all get a screen shot of it mentally so that you can see it. It's so simple that if you take a look at these four quadrants, you'll just memorize them.

My hope is that now having gone through this program with us, that you will understand it and start to see it in other apps and start to think about those apps that you're connected with so much more differently.

You'll understand why they're hooked, and you won't be one of those people who walk around saying, "The Bible's doing well because people love the Bible, right?" As if just putting the Bible in an app is the solution. You'll now be able to understand the thought process that allowed it to be much more compelling, much more of a continuous engagement.

By seeing how other people do it and understanding how you could do it yourself, my hope is that you all will get to do it. If you want to follow up...I've only scratched the surface. We've talked here for less than an hour, right, Nir?

Nir: Yep, that's about right.

Andrew: I have tried to pull in as many stories...Actually, no, I didn't try to pull in as many as possible. I tried to give people one specific example per section, maybe two. There's so many more in the book. I hope people will go to your website and get it. The site is [nirandfar.com](http://nirandfar.com). Do I need to spell that? No. I just want people to know that Nir is spelled like your name -- N-I-Randfar.com where they can buy it. They can also go to Amazon and buy it. And if they'd like, they can go to the Habit Summit when you click right there and be a part of it. Will you be meeting people at the Habit Summit?

Nir: I sure will, yeah...

Andrew: What's one benefit that people could get if they go to the Habit Summit?

Nir: Well, the Habit Summit is all about bringing together, really, people that I wanted to hear from. These are friends of mine and fellow practitioners, where people are going to share their hard won lessons from how to form user habits and how to boost engagement with their products or services. I would like, Andrew, if you'll let me just for a second, to talk about this disclaimer I have around how to use habit formation responsibly, which is something which is something we haven't talked about.

Andrew: Yeah, let's never use it responsibly, only for evil! Go out there and really hook people in like the cigarette manufacturers. That's what you were going to say, right?

Nir: Well, not quite. [laughs]

Andrew: [laughs]

Nir: But it should be noted that we have a tremendous power as entrepreneurs, as designers, as product makers, that we've never had before. I believe that we have more power than ever to affect people's day to day lives, and we have to use that power responsibly. Half my writing, if you look at my blog, is about how to build habit forming technologies, and the other half is how to prevent unwanted manipulation.

In fact, I've used the hook model to build good habits and break bad habits in my own life. What I'm hoping will happen, is that your listeners and my readers will find ways to improve their lives by using the hook model personally, but then also to build products that help people live happier, healthier, wealthier, more connected lives by using habit forming technology. It's all about making things that people want to do easier to do by turning them into habits.

Andrew: All right, fair enough. I do remember even in the book that you had a disclaimer, and I said, "I don't need the disclaimer!" [laughs] Let the audience run rampant with this! But I do appreciate that you did that. It's great to have you on here. How do you feel that this went for you?

Nir: Fantastic, this was a pleasure! Great questions, and I really enjoyed it!

Andrew: Thank you! Thank you all for being a part of it, let me know what you end up doing with this, and let Nir know, especially if you go to his conference, let him know in person. Thank you all, bye.