

Produced in Native



Principles of Habit Building for YouTube

go/BuildingHabits

@ - DAV Growth Team

Special thanks to Natalie Johnston for all her feedback and expertise on this report.

The purpose of this report is to help with brainstorming features and concepts that build habits on YouTube

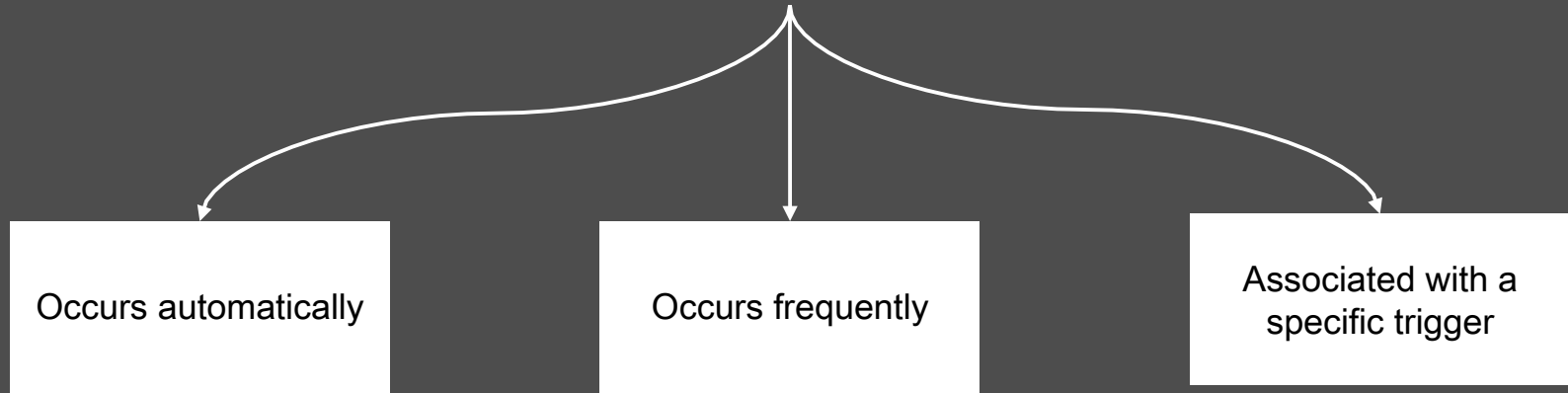
Google | Confidential and Proprietary

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A habit is a behavior that frequently occurs in the context of a specific trigger with little to no conscious thought.

Key Components of a Habit

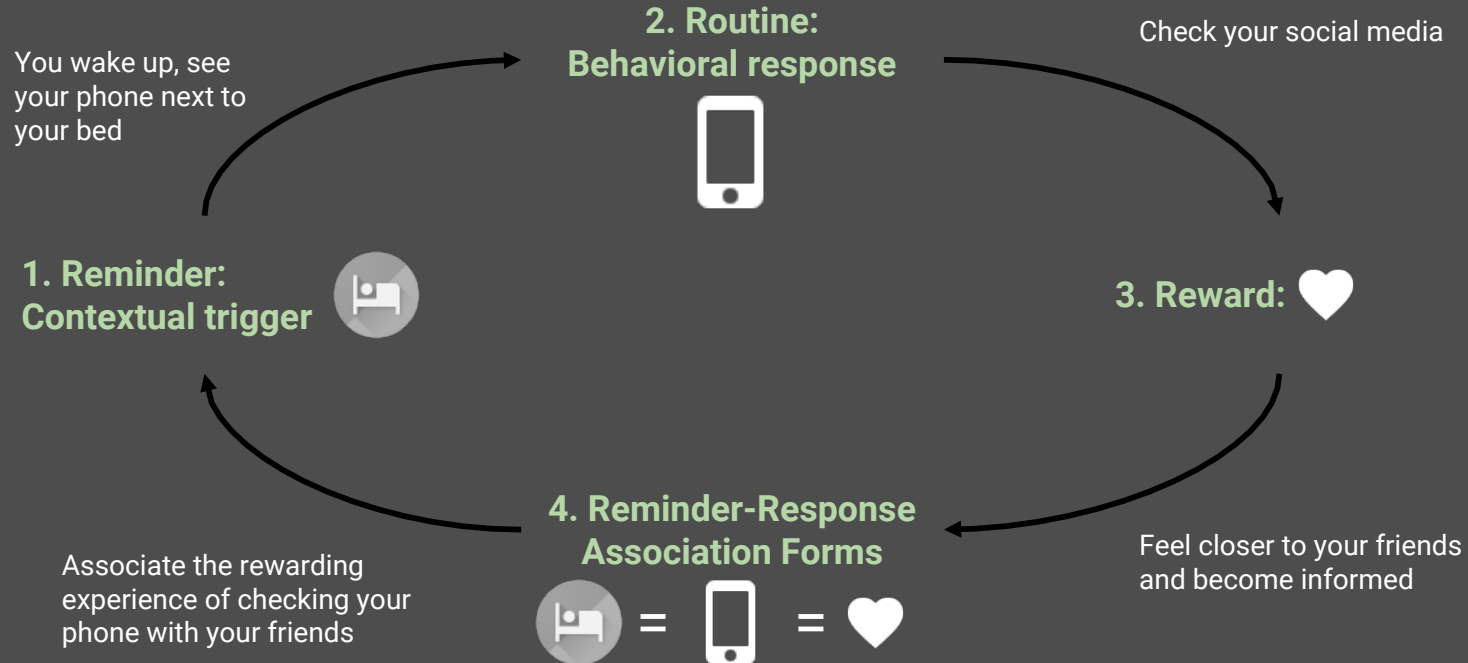


Some Habit Facts

- **1-2 months** are required to create a stable habit ([Source](#))
- **50%** of behavior is repeated daily in the same context ([Source](#))
- **55%** of habits are accompanied by multitasking/mind wandering ([Source](#))
- **Habits** are sensitive! They stop when contexts/behaviors change ([Source](#))
- **Goals** are motivated by rewarding outcomes, habits are not. (You won't go to the theatre unless it's a movie you want to watch. But we eat popcorn even if we're not hungry because eating popcorn is a habit that doesn't need a reward) ([Source](#))

3 R's of Habit Building

Reminder - Routine - Reward



Sources [\[1\]](#) [\[2\]](#) [\[3\]](#)

5 Principles of Habit Building

PRINCIPLE 1

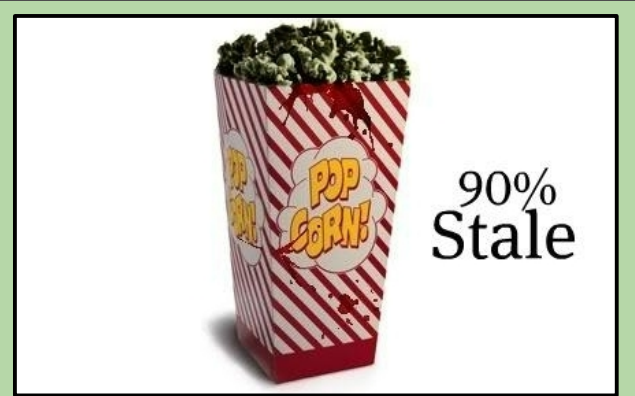
Habits begin with goal pursuit

Goals spark users into action. A number of motivational goals exist:

- **Knowledge** : “I want to learn this recipe, let me Google it”
- **Social Pressure**: “Use Snapchat to fit in with my friends”
- **Pleasure**: “I want something good to eat - TacoBell is closest”
- **Anticipation**: “I don’t want to miss out - let me check that post”

Habits form as people **repeatedly** pursue goals through particular means in **stable contexts**.

People tend to repeat responses that are **rewarding**, and habits tend to develop from actions that consistently yield positive outcomes.



Example

Initially, you ate popcorn because it was tasty and your family was eating it. Eating popcorn became associated with the reward of connection and entertainment.

After enough repetition, the context of your family isn't needed to generate a rewarding feeling from eating popcorn. Once this habit is formed, research shows that people will still eat popcorn even if it's stale.

PRINCIPLE 2

Simpler behaviors more easily form habits

Simplicity is determined by the scarcest resource at that moment:

- **Effort:** Buying the same toothpaste is **less effort** than considering a superior but different brand.
- **Price:** Using Google docs is **cheaper** than using MS Office
- **Time:** Snapping a video is **faster** than uploading on YT
- **Social Deviance:** Putting on a seatbelt is **socially acceptable**
- **Routine:** Shopping at the same grocery store because it's near your home or on the way from work.

People often prefer behaviors that feel easiest to perform, based on their most limited resource. People also feel more positive toward behaviors in which they feel proficient, even if it requires more steps.



Learn more about Simplicity research (12:00)

YouTube UX Research



Example

It's fewer steps to select a movie on *Netflix* from the comfort of your couch than driving to *Blockbuster*, picking out a movie, paying, and driving home.

It is simpler to click once to purchase vs. adding to a cart and checking out.

PRINCIPLE 3

Strong rewards reinforce our behaviors

Greater rewards produce more repetition because they reassure us that our behavior was good - but you need both **reliable** and **variable** rewards to reinforce habits.

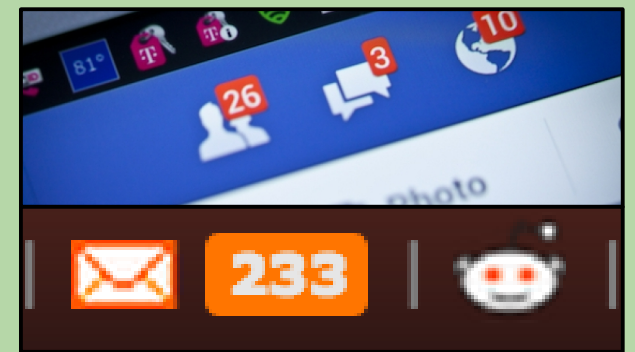
Predictable rewards like finding a video on YouTube search will steadily increase repetition (low risk = low reward)

Unpredictable rewards are disproportionately delightful compared to predictable rewards because they're unexpected or exceed expectations (e.g., finding a new favorite song while in a mix).



Learn more about the
Science of Rewards (5:00)

YouTube UX Research



Example

Internet points are a powerful form of predictable reward. Facebook likes or Reddit karma are a clear form of social recognition.

[Learn about the 6 types of rewards](#)

Slide 1

- 1 When thinking about habit building around YouTube, it is important that we reliably fulfill their goal pursuits (reliable reward) while also providing surprising nuggets of reward (variable reward). Ultimately you're giving people more reasons to come back until they can't even remember why they did. When is the last time you had a goal in mind when you went to Facebook?
Natalie Johnston; 1/8/2016 4:41:03 PM
- 2 We (YouTube) tend to excel at the surprise and not as much at the reliable, with exceptions.
Natalie Johnston; 1/8/2016 4:41:03 PM

PRINCIPLE 4

Habits are cued by contextual triggers

When a **rewarding behavior** is frequently accompanied by a particular trigger, the trigger and behavior become chronically associated.

Habits are fragile and will break if the:

- Triggers change (I can't watch videos at lunch anymore)
- Behavior sequence is inconsistent (steps to finding a funny video are always different)
- Experience is not rewarding (the notification was a bad video)

External Triggers:

- "I check out the movies in RedBox once I'm done shopping"
- "When I walk into the kitchen, I check the fridge"

Internal Triggers:

- When I'm bored, I open Reddit
- When I don't know, I ask Google



Example

Febreze was marketed as a way to **finish** the cleaning routine. It piggybacked the existing habit of tidying up your home and served as a reward for finishing.

1. See a messy house (trigger)
2. Tidy up (behavior)
3. See a clear house, spray Febreze (behavior)
1. Associate clean house with Febreze (reward)

Slide 1

- 3 Habitual behaviors are also driven by stimuli. Basically there are context-and stimulus-based learning, and they are actually separate, yet sometimes interacting processes. Behaviors that are context based are more flexible ("fragile"), but those that are stimulus-based are pretty rigid. So while contexts often reinforce associations, a stimulus-based habit is the most "strong".
Natalie Johnston; 1/8/2016 4:42:15 PM
- 1 This is interesting. Would a notification from your phone be an example of stimulus based trigger (assuming you keep your phone with you in almost every context)?
Natalia Fisher; 1/4/2016 5:28:52 PM
- 4 Yes responding to a notification is a great example of a stimulus-driven response
Natalie Johnston; 1/4/2016 5:35:23 PM
- 1 + [REDACTED]@google.com hey Natalie, could you point out the references to the difference in context- and stimulus-based learning? I would love to learn more on this, seems very interesting!
Celine Chu; 1/6/2016 6:00:38 PM

PRINCIPLE 5

Repetition reinforces behavior

When a rewarding action is performed, an association is created between the situation and action. Repetition reinforces and establishes this association, making alternative actions less accessible in that situation.

To form a habit, a behaviour must repeatedly occur as a response to the same stimulus or in the presence of the same context.

Once a link is formed through repetition, you can create “**context chains**” that habitually link one behavior to another.

Facebook:

Reply to a comment → Check your feed → Post a comment → etc

Steam:

Open app → Check 12 hour Flash Sales → Chat with friends → etc

YouTube:

Receive notification → Check video → Check other videos → etc



Example

Clash of Clans, *World of Warcraft*, and other successful games use “Daily Rewards” as a way to train users to open the app every day. Rewards become progressively larger the longer the “habit chain” lasts.

Slide 1

- 5 An association is made IF it's rewarding. It must have some hedonic value to reinforce the behavior in the future.
Natalie Johnston; 1/4/2016 6:54:22 PM
- 6 It's not accurate to say it must be carried out in the presence of the same contextual cues. Habit learning actually stimulus-driven, but contextual cues can become associated.
Natalie Johnston; 12/30/2015 7:46:36 PM
- 7 A habit is most strong, most rigid if it does NOT depend on context and can be triggered by a stimulus anywhere
Natalie Johnston; 12/30/2015 7:47:39 PM
- 1 I still think this slide might be missing the stimulus-based habit-building info.
- I didn't find enough research about this to put anything here. thoughts?
Josh Lewandowski; 1/4/2016 5:35:28 PM
- 8 ultimately what you are describing is reinforcement learning (ala Pavlov). A behavior becomes habitual when the stimulus itself can produce the reward response (which is a dopamine response that results in behavioral response), regardless of how rewarding the actual outcome is. This process can also be influenced by context.
Natalie Johnston; 1/4/2016 6:54:22 PM
- 9 So I would keep it simple. 2 slides: Habits are cued by rewarding stimuli. Habits are reinforced by context.
Natalie Johnston; 1/4/2016 5:42:50 PM

Slide 1 (continue)

10

in the case of Natalia's notification example, the notification itself has become associated with reward, and it is strong enough to reliably elicit behavior (i.e. checking the app). If it's a habit you'll do it nearly every time even if there isn't anything that great on the app.

Natalie Johnston; 1/4/2016 5:44:39 PM

4 Concluding Guidelines for Habit Building

1. Create a compelling goal

Amazon: I need to buy a new bookshelf for my new apt

2. Simplify the actions needed to achieve the goal

- 1-click purchase vs. checking out
- Sorting by relevant options (price, color, etc)

3. Offer both variable and reliable rewards

Reliable reward: I easily found the item I needed

Variable reward: There are items I didn't think of that other people bought when making this purchase.

4. Provide triggers to repeatedly link behavior and goal

Internal Trigger: "I need to buy something else... Amazon is a good place to buy stuff from"

External Trigger: Email notification about your purchase or similar items.

Slide 1

2

are there more examples of rewards you can give that are more consumption-focused (as opposed to creation / publishing)?

Natalia Fisher; 1/5/2016 8:18:54 PM

11

Josh, your casino example is the best example of risk/reward learning. It's important to both provide for low risk (e.g. predictable)/low reward and high risk (unpredictable)/high reward, to keep people coming back.

To clarify that for the other examples, you should give examples of how each plays it safe (e.g. pretty nature pics I take usually get me a handful of likes...it's reliable) and where each takes a risk (e.g. "I'm gonna post this crazy pic of a dead whale...I wonder how people will respond?"). Now that's from the creator/publishing standpoint, as Natalia pointed out. Ultimately this deck seems to be intended to address the user/viewer/consumer behaviors, so I would provide examples to that. For example, "I'm gonna watch House again because it's entertaining enough for right now" vs "I feel like browsing around for something exciting and new". FYI, I'll putting an entire deck together around this with Alison.

Natalie Johnston; 1/5/2016 8:18:54 PM

Opportunities for YouTube

To build a habit...

Recognize people's goals and fulfill them with YT

1 Integrate into existing goals:

- *Setting your alarm (Play a video when you wake up)*
- *Eating lunch (Here's 30 mins of funny videos)*
- *Getting ready for bed (Catch up on late night)*
- *Waking up (morning music, daily news digest)*
- *Commute (40 minutes of music)*
- *Study music (endless music)*

What goals can we create?

- *Related topics: "People who had question X also had question Y - here's some videos on question Y"*
- *Related answers: "You looked up a video on stocks, here is a video on today's financial analysis"*

1 Where we succeed

- *Searching for a video or topic*
- *Getting caught up on your subscriptions*
- *Piggybacking on another goal: YouTube appears in Google search results.*
- *Notifications: Tap bell or having a react video hearted.*

Slide 1

12

We should insert ourselves into people's routines. Understand what goals people have and then we should become the place where they can have it fulfilled. Then, it's best if we aren't a one trick pony and can provide surprising rewards from time to time, which we are great at at YouTube.

Recognize people's goals and give them an easy way to fulfill, and then provide cues/reminders that we can easily fulfilling their goals (e.g. advertisements, notifications)

Natalie Johnston; 1/8/2016 5:00:31 PM

1

+ [REDACTED]@google.com + [REDACTED]@google.com + [REDACTED]@google.com Nice list. In YTNeeds you can get more information on these, like getting ready for bed (<https://goo.gl/zWN6zY>). Very few users do it on YT every week and we could work more on that to perform better than our competitors. Other examples include the need to feel inspired to get ready for the day or the need to be updated on news (both usually triggered mostly in the mornings: <https://goo.gl/hNjO3I>). A lot of room for improvement given the low frequency.

Rodrigo de Oliveira; 1/21/2016 12:01:50 AM

2

+ [REDACTED]@google.com +Snackpacks!

Josh Lewandowski; 1/13/2016 1:36:20 AM

1

+ [REDACTED]@google.com + [REDACTED]@google.com + [REDACTED]@google.com the snackpack concept of having sets of content that update weekly or daily (maybe even at a specific time) is one way to tackle this. early brainstorm here: go/snackpacks

Stephanie Leung; 1/15/2016 1:47:27 AM

Slide 1 (continue)

- 1 I'd love to collaborate if there's any movement with the go/snackpacks idea. We're quite interested in experimenting with this concept for Living Room
Dan Kaemmerer; 1/21/2016 12:01:50 AM
- 1 Getting caught up on subscriptions is a habit for some users but not all. Big opportunity here
+ [REDACTED]@google.com
Shimrit Ben-Yair; 2/5/2016 6:51:09 PM

Simplify the actions needed to achieve the goal

Where we succeed

- *1 click to search*
- *Finding related videos*
- *High set-up users can easily browse relevant videos (subscriptions)*

1 Opportunities

- *No clear way to make the Homepage useful by taking explicit actions. (i.e., users have to watch a bunch of videos and hopefully the Homepage will learn)*
- *Heavy set-up required to find and subscribe to relevant channels*

Slide 1

- 2 cc + [REDACTED]@google.com On mobile, instead of displaying three-dot menu next to a shelf, we could show an X to dismiss like desktop does
Stephanie Leung; 1/26/2016 9:49:59 PM
- 3 + [REDACTED]@google.com Yeah! I think Essam might have an open FR for this already
Natalia Fisher; 1/15/2016 4:51:19 PM
- 2 we could also make some of the existing actions users take to tell us what they like/dislike more explicit

e.g. if a user abandons/skips-over a video ask them "Want to see less of ____ in the future? Yes/No."
Dan Kaemmerer; 1/21/2016 12:04:52 AM
- 1 yes, bug here: <https://b.corp.google.com/issues/26434786>
Essam El-Dardiry; 1/26/2016 9:49:59 PM

Offer reliable and variable rewards

Where we succeed

Social rewards

- Receiving a reply to your comment
- A friend hearting your video
- Getting lots of videos/comments/subs

Recognition reward:

- Recognize live stream donors with a shout-out and a noticeable green bar
- Analytics (# views, likes, etc)

Monetary reward:

- Ad revenue
- Donations from viewers

Opportunities

Emotional reward:

- Make browsing reliably rewarding (you can scroll down Reddit/FB and find posts that are funny/informative/etc, you have to find a funny video and watch it before you get the reward)

Recognition:

- Recognize users' effort when they're done browsing a feed or completing an action (hitting the bottom or a feed, uploading a video, making a playlist)
- Recognize power users ("I have 100 subscriptions")

Social rewards:

- Provide viewers a form of social currency (hearts is a good start) for participating on the site

Vested Interest:

- Reward users with feedback when they do work like tap "Not interested" on the Homepage or Hide watched videos on their subscriptions

Appendix

More on Simplicity, Rewards, and Motivations

Literature Review

Academic Research

1. [Wood & Neal \(2007\) A New look at Habits and Habit-Goal Interface](#)
2. [Lally et al., \(2010\) How habits are formed](#)
3. [Wood & Neal \(2009\). The habitual consumer](#)
4. [Neal, Wood, & Quinn. \(2006\). Habits, a repeat performance.](#)
5. [Gardner \(2012\). Habits as Automaticity](#)
6. [Neal et al., \(2011\). How do habits guide behavior? Perceived and actual triggers of habits](#)
7. [Cheung et al., \(2013\) Understanding compulsive use of Facebook](#)
8. [Judah et al., \(2012\). Forming a flossing habit: An exploratory study of the psychological determinants of habit formation](#)
9. [Stawarz et al. \(2015\). Beyond self-tracking and reminders: Designing smart phone apps that support habit formation.](#)
10. [Zald et al. \(2004\) Dopamine Transmission in the Human Striatum during Monetary Reward Tasks](#)

Google Research

1. Dan Ariely
 - a. [2013 Habit Building Deck with Dan Ariely](#)
 - b. [Dan Ariely Meeting Notes](#)
 - c. [Workshop Notes](#)
2. [Project 40 - Recency matters by content](#)
3. [YT Needs - Why do people use YT?](#)
4. [Project Bedrock - Benchmark of top use cases](#)

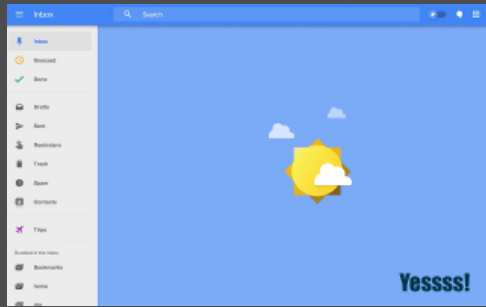
News Articles

1. [MIT News on Neurological habits in monkeys](#)
2. [Presentation - Applying habit building to behavioral changes](#)
3. Nir & Far Articles
 - a. [4 ways to win your customers habits](#)
 - b. [4 ways to win your competition's customers](#)
 - c. [Secret psychology of snapchat](#)
 - d. [The power of Facebook's comments](#)
 - e. [Blippy as a habit](#)

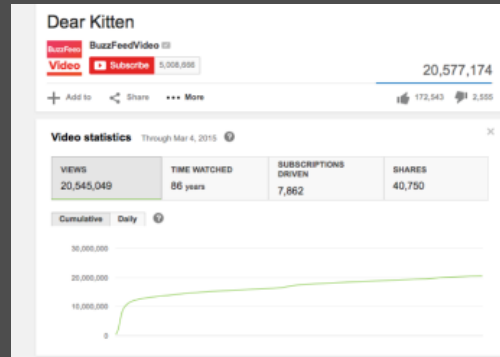
6 Types of Rewards (cont) [\(Source\)](#)

When users perform an action that you want them to perform again, immediately provide a strong reward. Test different rewards to see which stick for a given behavior.

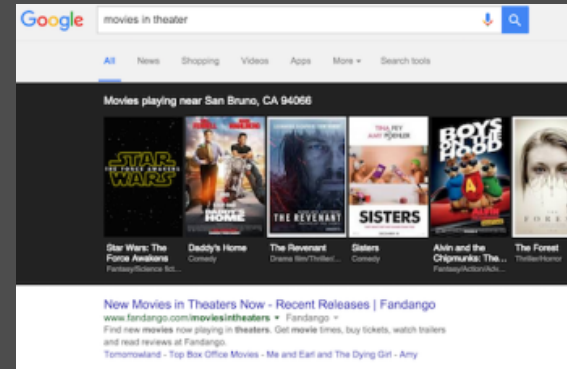
Recognition: Acknowledge the behavior as something worth repeating. Fitbit uses leaderboards to recognize people who take the most steps and Inbox recognizes users with an animation when they clear their inbox.



Social: Any type of internet point system is a form of social reward: liking, hearting, posting, views, subscriptions, followers are all rewards.



Emotional: Feeling caught up or included (a YouTube notification). Feeling relief occurs when users find the answer to their problem (Google search)



Slide 1

2

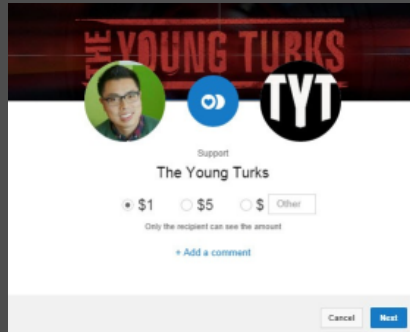
not sure about your plan for the presentation, but could you cover slides 19 to 24 as well when you present to us? Thanks

Celine Chu; 3/17/2016 10:48:55 PM

6 Types of Rewards (cont) [\(Source\)](#)

When users perform an action that you want them to perform again, immediately provide a strong reward. Test different rewards to see which stick for a given behavior.

Material: Physically being given something, such as a Chromecast for participating in a study, revenue from an upload, or a fan donation.



Vested Interests: Users may have a vested interest in seeing something succeed if they make it themselves. In the 50s, Betty Crocker learned that if they allowed families to add a egg to instant cake mix, they perceived the mix as “homemade”.



Power/Ego: Anything that makes you feel special or exclusive. Getting a badge for being a channel moderator. Taylor Swift calls her fans “Swifties”, Lady Gaga calls her fans “Monsters”.



6 Ways to Simplify [\(Source\)](#)

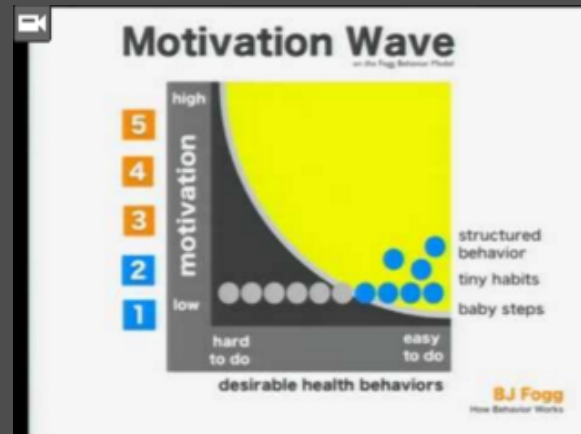
1. **Time:** is it faster?
2. **Money:** is it cheaper?
3. **Effort:** does it have fewer steps?
4. **Brain Cycles:** is it less mental effort?
5. **Social Deviance:** does it conform to social norms?
6. **Non-Routine:** is it part of an existing routine?

3 Types of Habitual Motivations [\(Source\)](#)

1. **Sensation** : Pleasure and pain
2. **Anticipation**: Hope and fear
3. **Belonging**: Social acceptance and social rejection

People act habitually when... [\(Source\)](#)

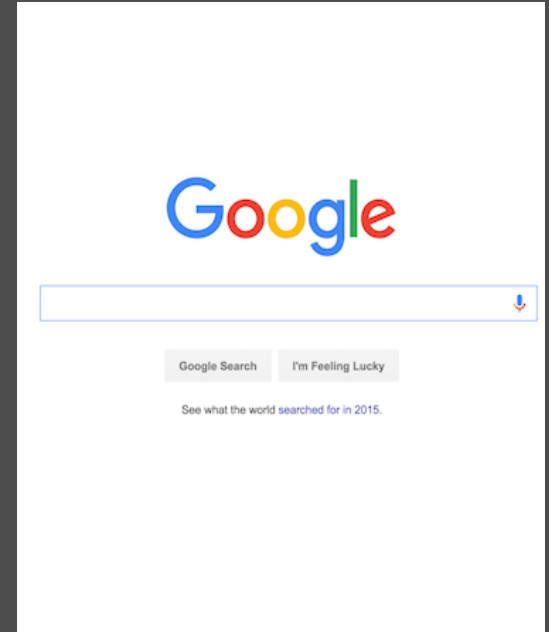
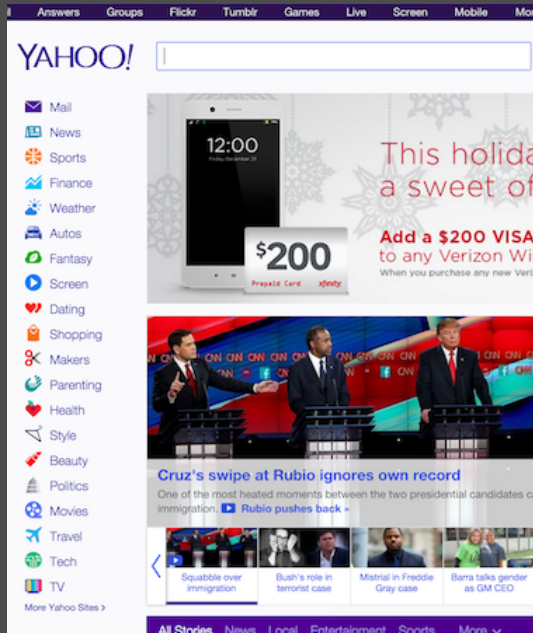
1. Under time pressure (we take the simplest route)
2. Distracted (we're inhibited to think hard so we fall back onto what feels second nature)
3. Self-control is limited (if you're tired, you just do the thing that's easiest)



Learn more about
motivations. (22:00)

Simplicity wins

Prior to broadband connections, one reason users chose Google search is simply because it loaded faster.

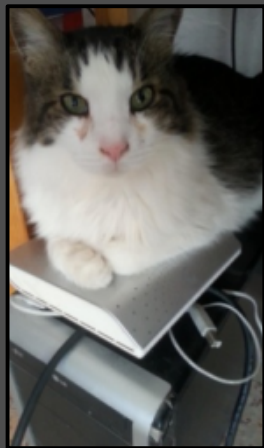




Snapchat reward loops

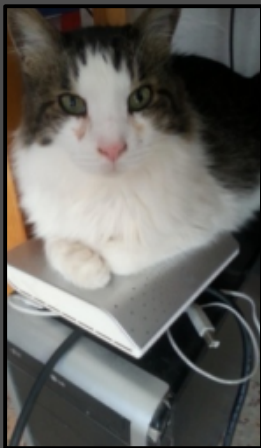
1. Contextual Trigger:

“Fear of losing the moment!
Quick! Snap!”



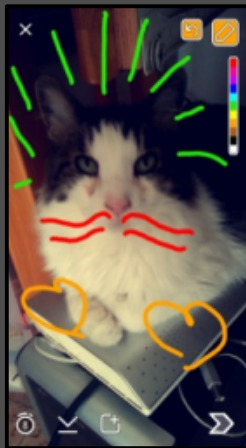
2. Behavior:

Snap with one tap



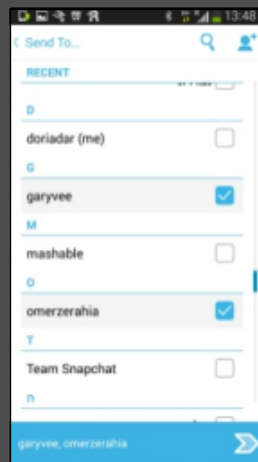
3. Investment:

“How does this look!?”



4. Reward:

Get positive feedback from friends



5. External Trigger:

Replying to snap sends notification.
Loop continues

