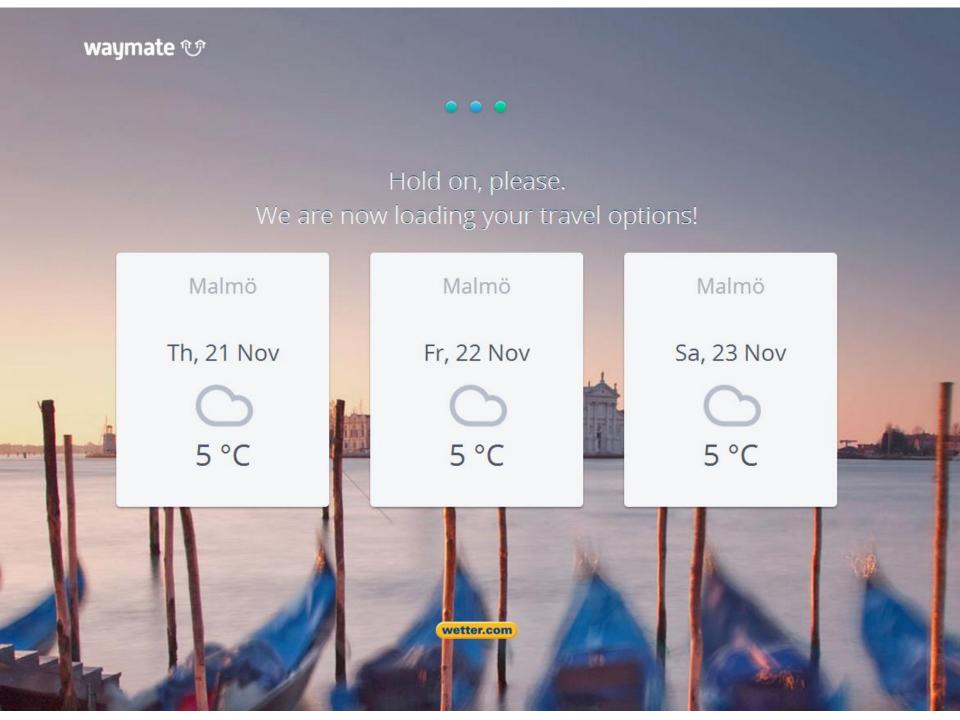
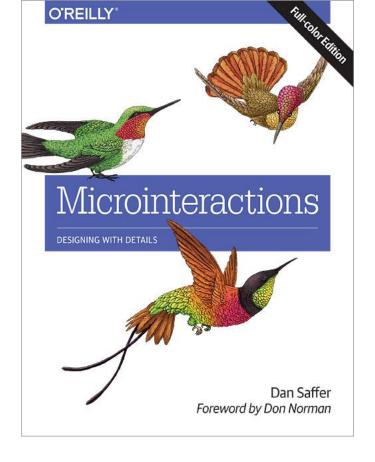
Microinteractions.01

India HCI 2016. 7 Dec 2016

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Microinteractions – details that delight

Big picture or small details?

The details are not the details. They make the design

— Charles Eames

God is in the details

Ludwig Mies van der Rohe

To create something exceptional, your mindset must be relentlessly focused on the smallest detail

— Giorgio Armani

























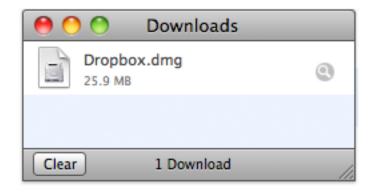




What is a "microinteraction"?

- Microinteractions are the small pieces of functionality that are all around us
- It is a product use case boiled down to a single moment, focused on a single task
- Every time you change a setting, sync your data or devices, set an alarm, pick a password, log in, set a status message, or favorite or "like" something, you are engaging with a microinteraction
- Microinteractions are small, subtle, fleeting, yet incredibly important, and are often the difference between a product you love and a product you merely tolerate

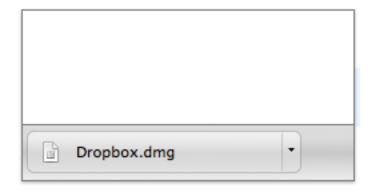
Safari



1. Run the Dropbox Installer

From your browser's Downloads window, double click the .dmg file that just downloaded.

Chrome

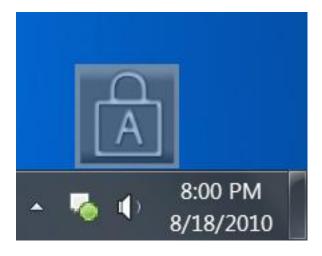


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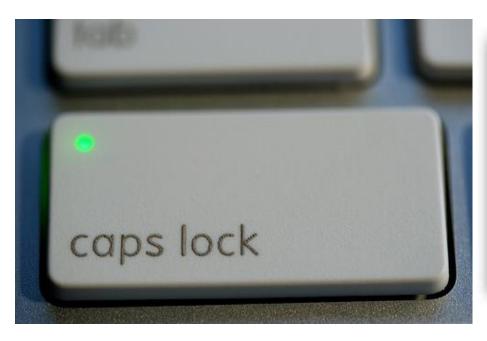
Dropbox's download instructions differ according browsers





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Forgot your u	username or	You should press Caps Lock to turn it off before entering your password.
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Win caps lock alerts



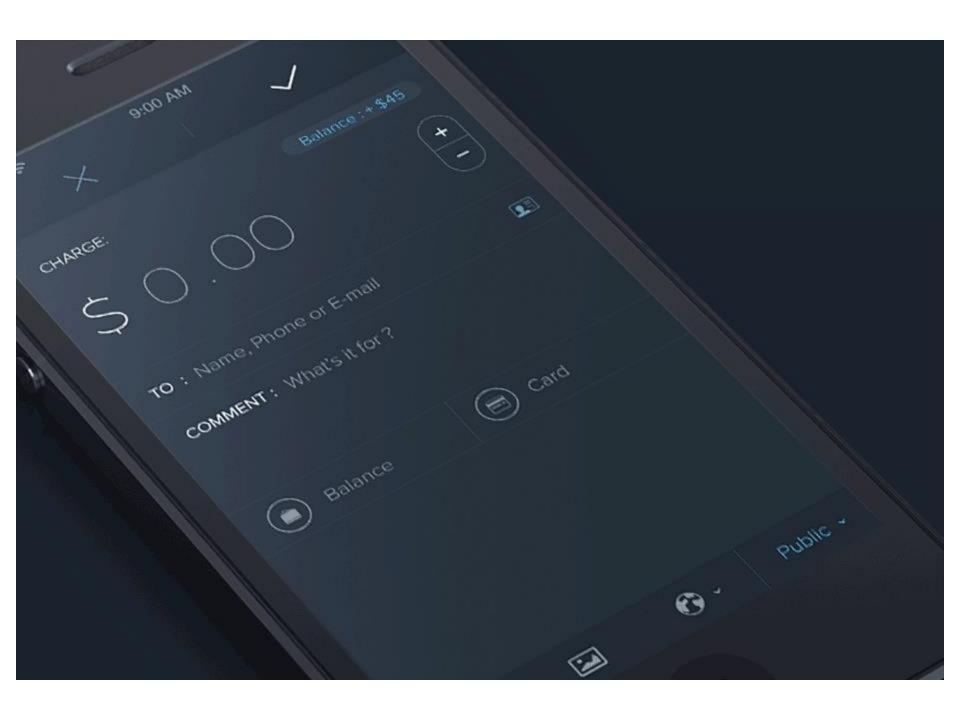


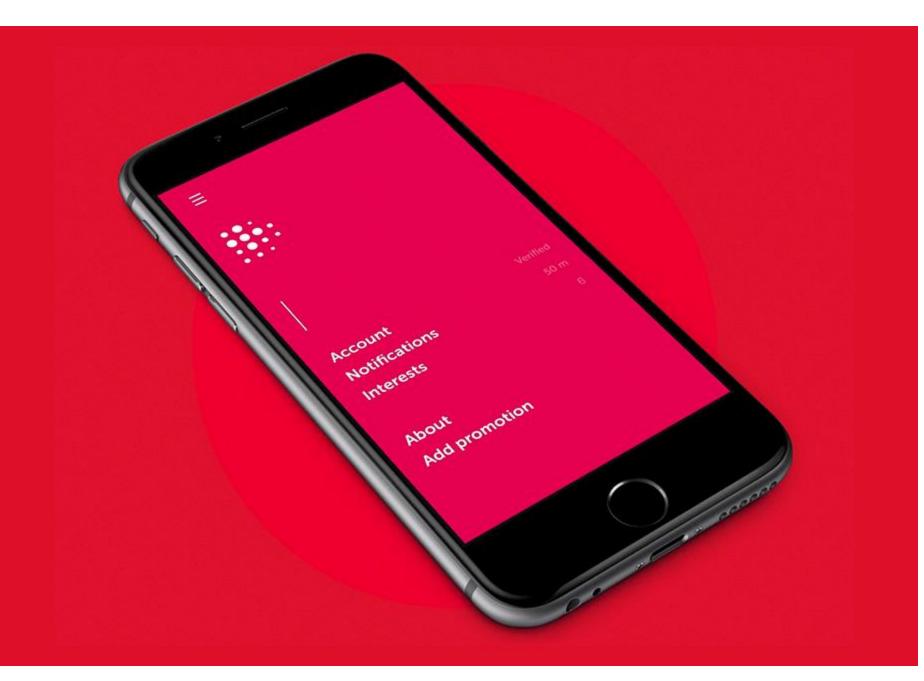
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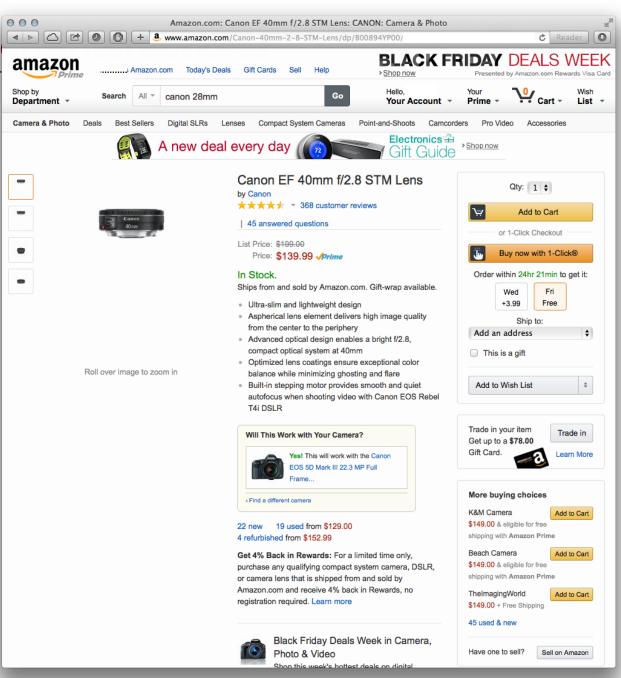


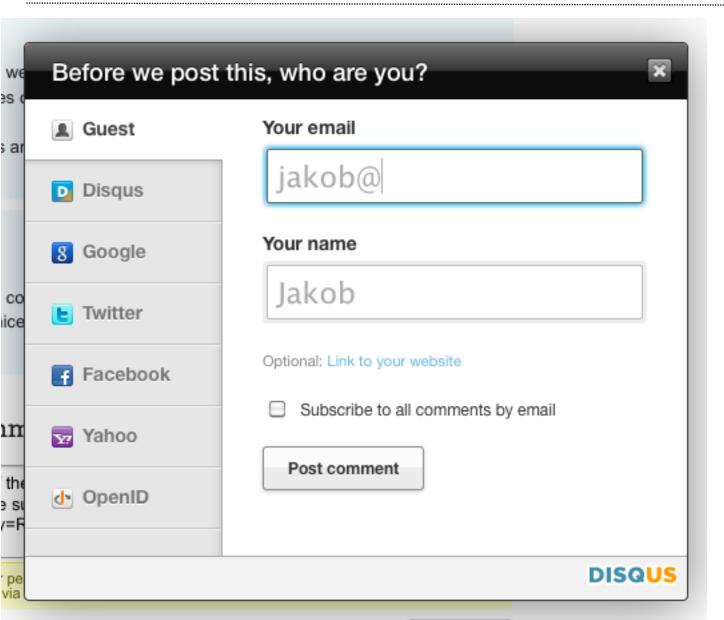




Examples of Mi

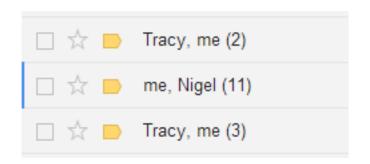
Amazon's product search alerts you to compatibilty based on your past purchases

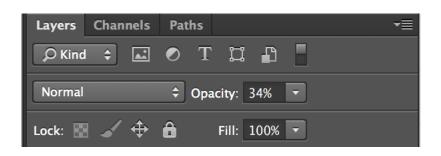




The Disqus signup form guesses your name based on your email address

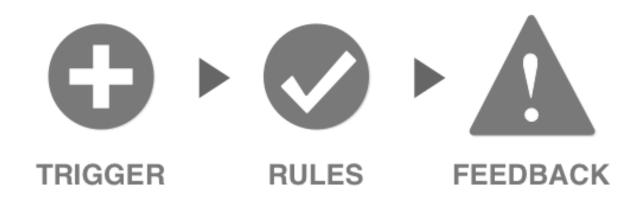






Gmail attachment indication & last read mail highlight

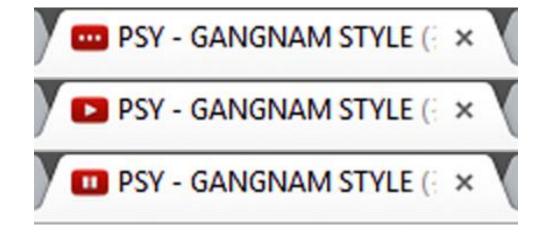
The Structure of Microinteractions



- A Trigger initiates a microinteraction
- The Rules determine what happens
- Feedback lets people know what's happening

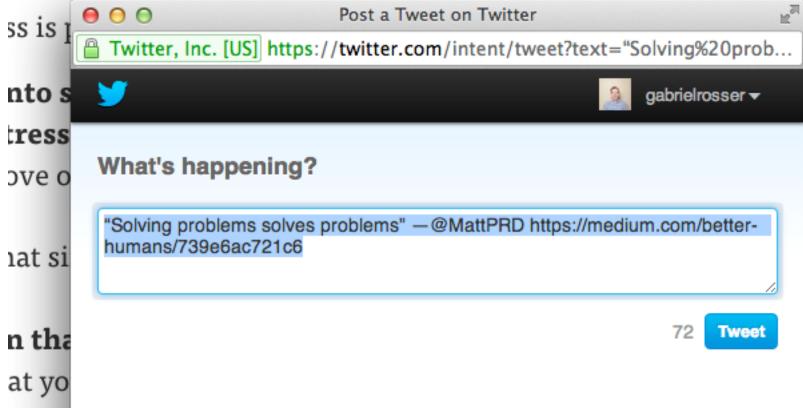
- A trigger is whatever initiates a microinteraction
- Manual triggers are user initiated, and can be a control, an icon, a form, or a voice, touch, or gestural command
- System triggers happen when a certain set of conditions are met.







and stressing out as hard as possible will solve the o, of course not. **Solving problems solves problems.** et emotional and focused on something stressful, but in



Delivery Status app - It detects if you have a tracking number on the clipboard on launch, and it also says from which courier









1. Triggers – things to remember

- Make the trigger something the user will recognize as a trigger in context
- Have the trigger perform the same action every time
- Bring the data forward. Show essential information from inside the microinteraction on the trigger when possible, such as unread messages or ongoing processes
- If the trigger looks like a button, it should act like a button -don't break visual affordances

1. Triggers – things to remember

- The more used a microinteraction is, the more visible the trigger should be
- Add labels when there is a need for clarity, when the trigger alone cannot convey all the necessary information
- System triggers need rules for defining when and how often they appear.

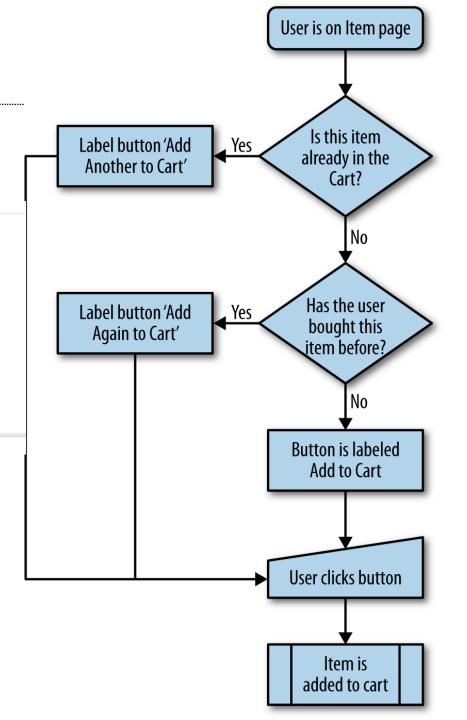
2. Rules

- Rules create a nontechnical model of the microinteraction—they define what can and cannot be done, and in what order
- While the purpose of rules is to limit user actions, it's important that the rules not feel like, well, rules
- Users shouldn't feel like they have to follow—or worse, memorize—a strict set of instructions to achieve the goal
- Instead, what you're striving for is a feeling of naturalness, an inevitability, a flow, gently guiding users through the "interaction" of the microinteraction

2. Rules



The goal of this microinteraction on Amazon is to prevent users from buying something off their wish list that someone may have purchased already—to prevent a situation... without spoiling the surprise



2. Rules determine...

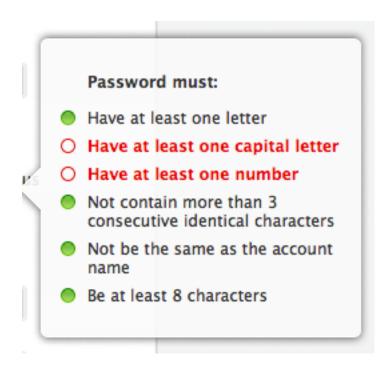
- How the microinteraction responds to the trigger being activated. What happens when the icon is clicked?
- What control the user has (if any) over a microinteraction in process. Can the user cancel a download, change the volume, or manually initiate what is usually an automatic process like checking for email?
- The sequence in which actions take place and the timing thereof. For example, before the Search button becomes active, users have to enter text into the search field.

2. Rules determine...

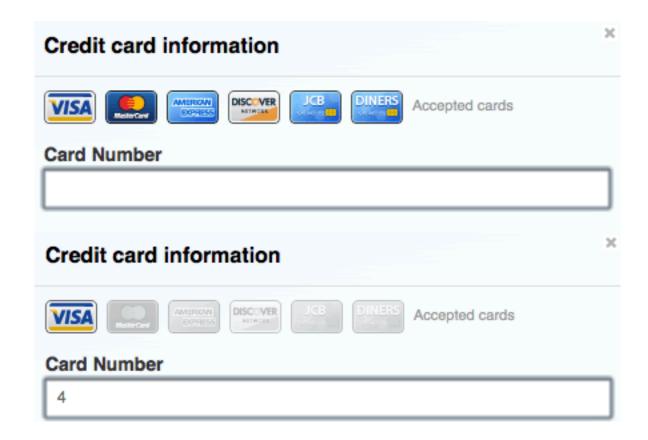
- What data is being used and from where. Does the microinteraction rely on geolocation? The weather? The time of day? A stock price? And if so, where is this information coming from?
- The configuration and parameters of any algorithms. While the rules in their entirety can be thought of algorithmically, often certain parts of a microinteraction are driven by algorithms.
- What feedback is delivered and when. The rules could indicate which "steps" should get feedback and which operate behind the scenes.

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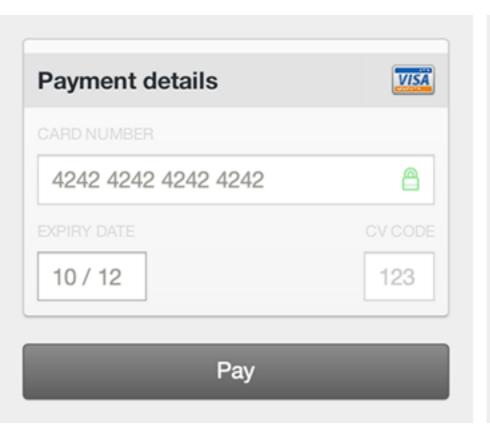
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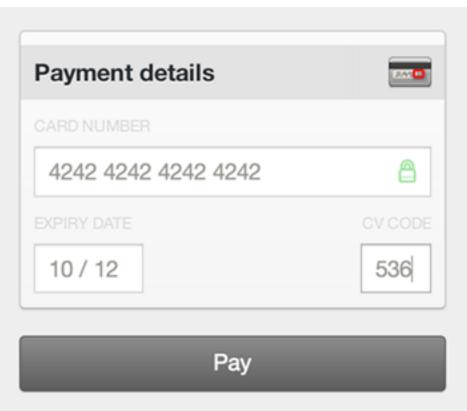


When changing your Apple ID password, must-have items are checked off progressively as the user enters them. It reveals and enforces the rules of the microinteraction at the same time.



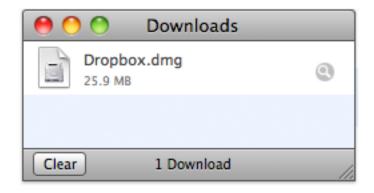
GitHub doesn't make users select a credit card. Instead it automatically selects it for them by using the number they type into the field to detect what card type it is





When it comes time to enter the CVV number, the image of the credit card flips over so that you can immediately see where the number would be.

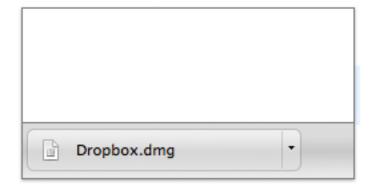
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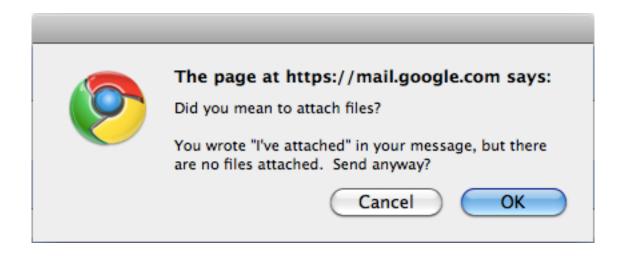
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Dropbox changes the download instructions based on which browser you're using



Gmail gives you a notification before sending the mail to see if you've forgotten to attach a file

2. Rules – things to remember

- Rules must reflect business, contextual, and technical constraints
- Don't start from zero. Use what you know about the user, the platform, or the environment to improve the microinteraction.
- Remove complexity. Reduce controls to a minimum.
- Reduce options and make smart defaults. More options means more rules.
- Use the rules to prevent errors. Make human errors impossible.

- Feedback is to help users understand how the rules of the microinteraction work. If a user pushes a button, something should happen that indicates two things: that the button has been pushed, and what has happened as a result of that button being pushed
- The feedback should enable users to make a working mental model of the microinteraction. It should let users know what they can and cannot do with the microinteraction
- However care should be taken to not overburden users with too much feedback

Aficio MP C6501SP

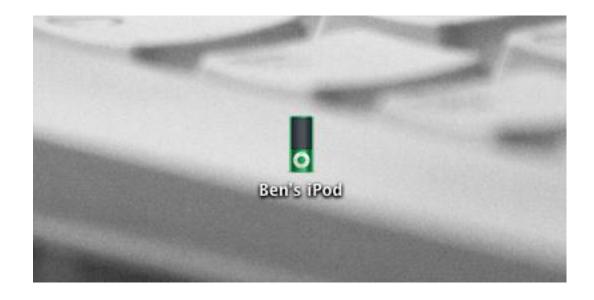
Color Copier with Simple to Use Operation

This color copier prints up to 60 ppm in full color and 65 ppm in to associated with supporting multiple color printers.









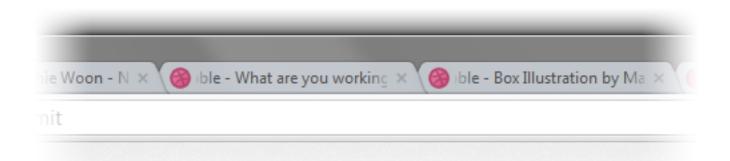


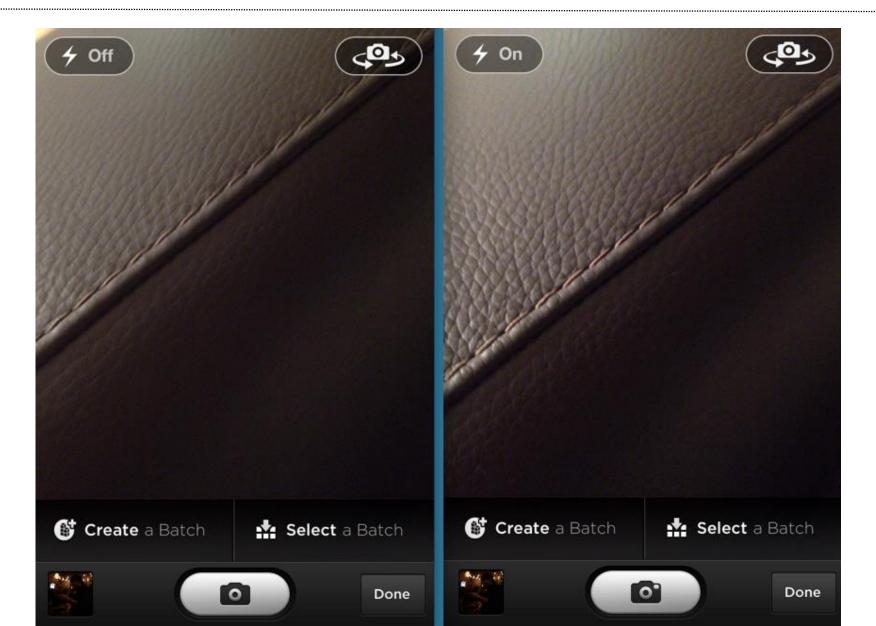


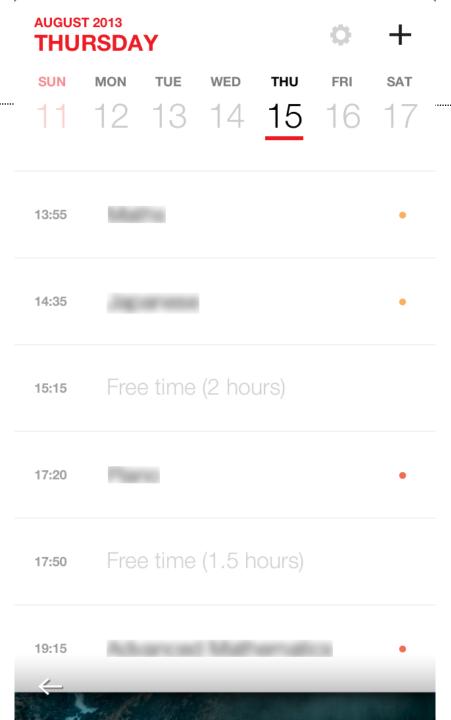
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3. Feedback – things to remember

- Understand what information the user needs to know and when. All feedback relies on this understanding.
- Feedback is for understanding the rules of the microinteraction. Figure out which rules deserve feedback.
- Determine what message you want to convey with feedback, then select the correct channel(s) for that message.
- Look at context and see if the feedback can (or should) be altered by it.

3. Feedback – things to remember

- Be human. Feedback can use a veneer of humanity to provide personality to the microinteraction.
- Use preexisting UI elements to convey feedback messages. Add to what is already there if you can before adding another element.
- Don't make feedback arbitrary. Link the feedback to the control and/or the resulting behavior.
- Whenever possible, have visual feedback for every userinitiated action. Add sound and haptics for emphasis and alerts.