Microinteractions

ID 405: Human-Computer Interaction
Spring 2015

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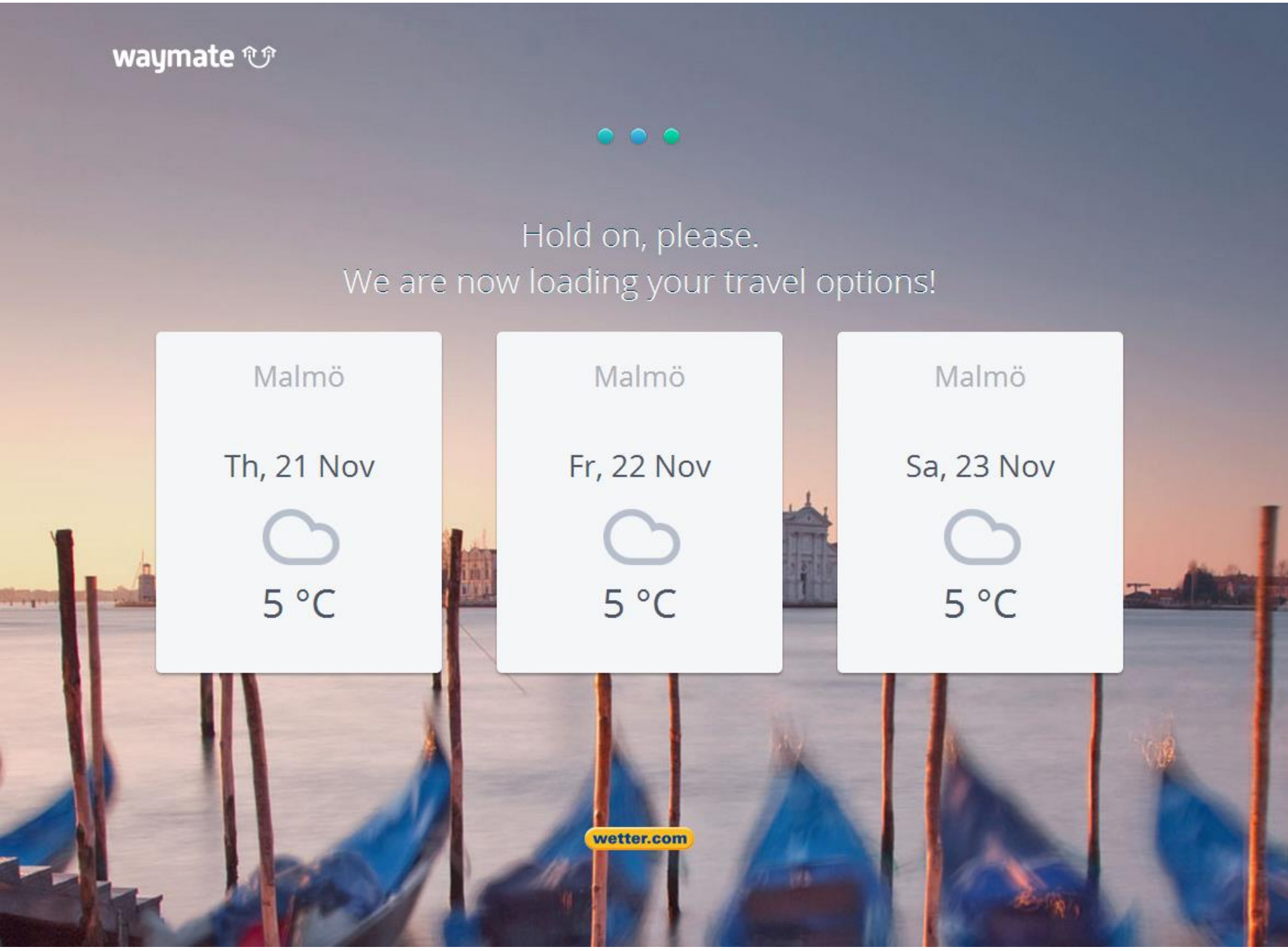
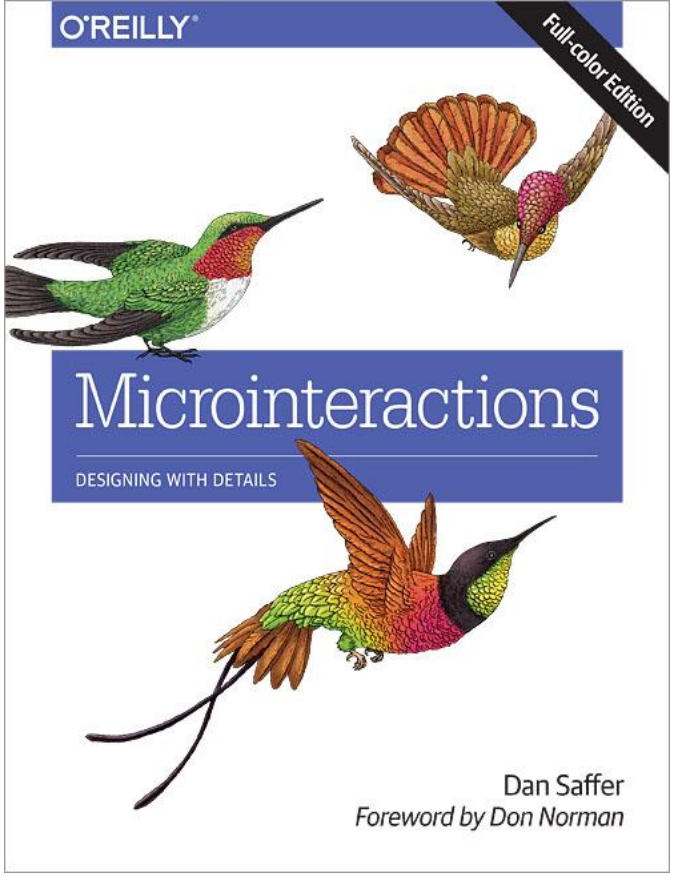
http://info-design-lab.github.io/ID405-HCI/


waymate
Hold on, please.
We are now loading your travel options!
Malmö
Th, 21 Nov
5 °C
Malmö
Fr, 22 Nov
5 °C
Malmö
Sa, 23 Nov
5 °C
wetter.com



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*


Target Guest
AMOXICILLIN 500MG
Take: One capsule by mouth three times daily.
qty: 30
refills: No
Dr. Smith
disp: 02/27/05 REL
mfr: GENEVA
NDC: 00781-2613-05
(877) 798-2743
Rx:1234567-0000
TARGET PHARMACY
900 Nicollet Mall
Minneapolis, MN 55401


CAUTIONS
Important: Finish all this medication unless otherwise directed by prescriber.
Take with food or milk.
Some Medicines May Decrease The Effectiveness Of Birth Control Pills. Ask Your Doctor Or Pharmacist.
Drink Plenty Of Water While Taking This Medicine
AMOXICILLIN
Common Uses:
Patent Pending


OXO
cups
4
3/4
2/3
1/2
1/3
1/4
3
2
1


DEFROST
A BIT MORE
A BIT MORE
DEFROST

What is a "microinteraction”?

- Microinteractions are the small pieces of functionality that are all around us

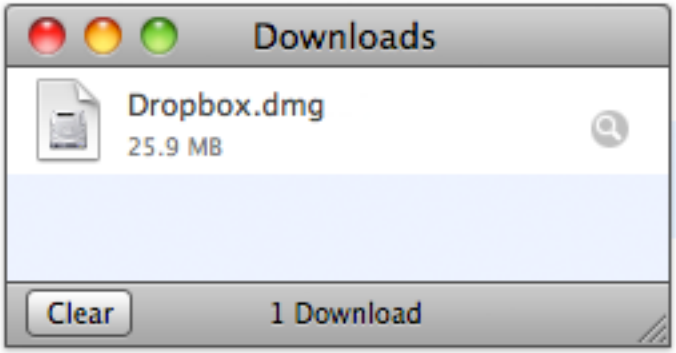
- It is a product use case boiled down to a single moment, focused on a single task

- 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

Examples of Microinteractions

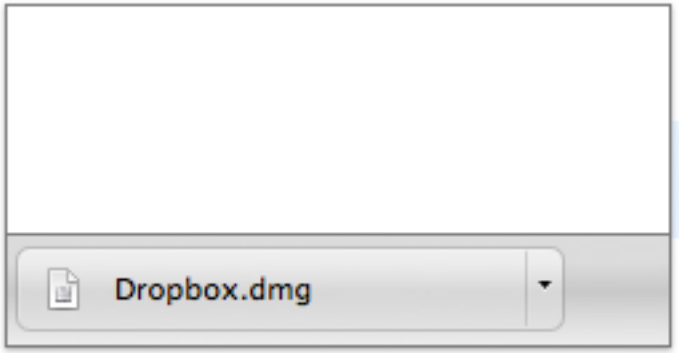
Safari



1. Run the Dropbox Installer

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

Chrome



1. Run the Dropbox Installer

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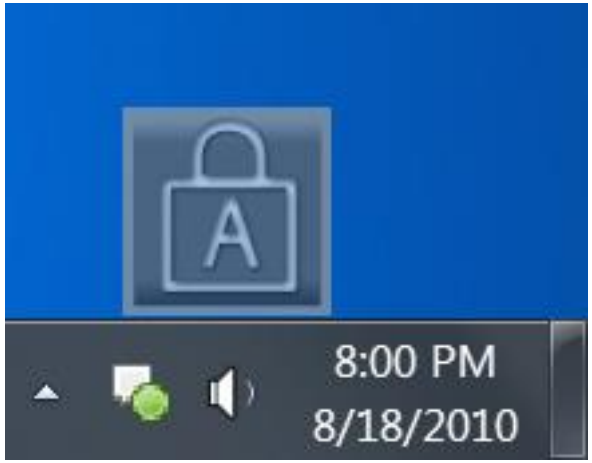
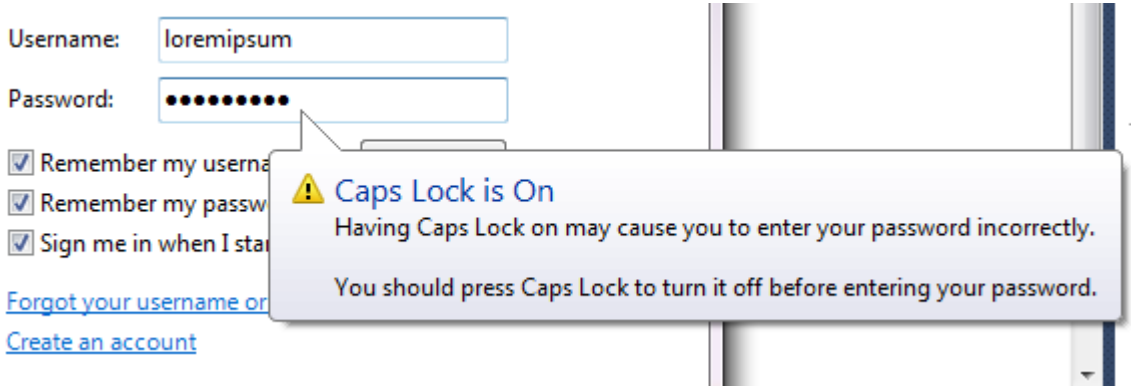
Dropbox's download instructions differ according browsers

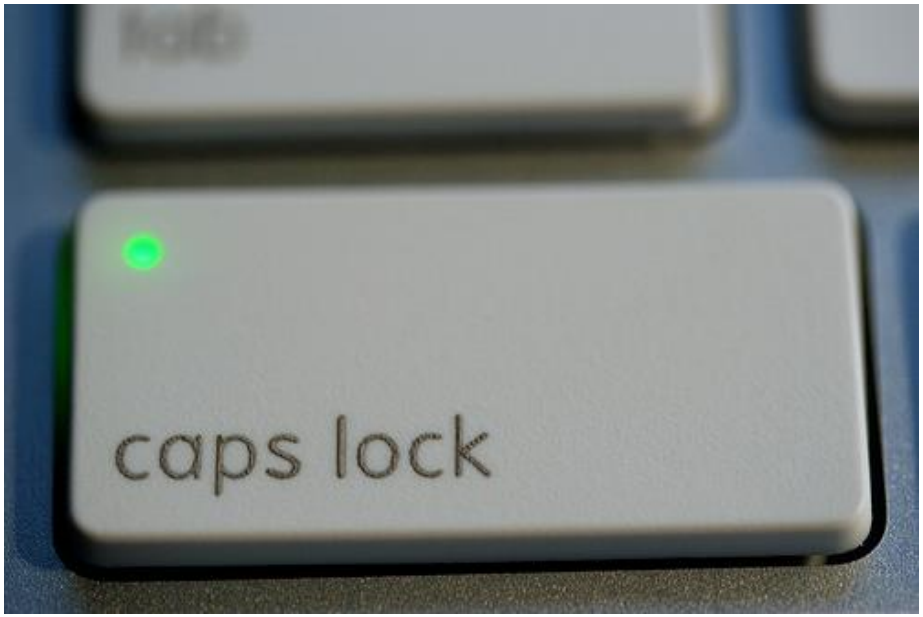
Examples of Microinteractions





Win caps lock alerts

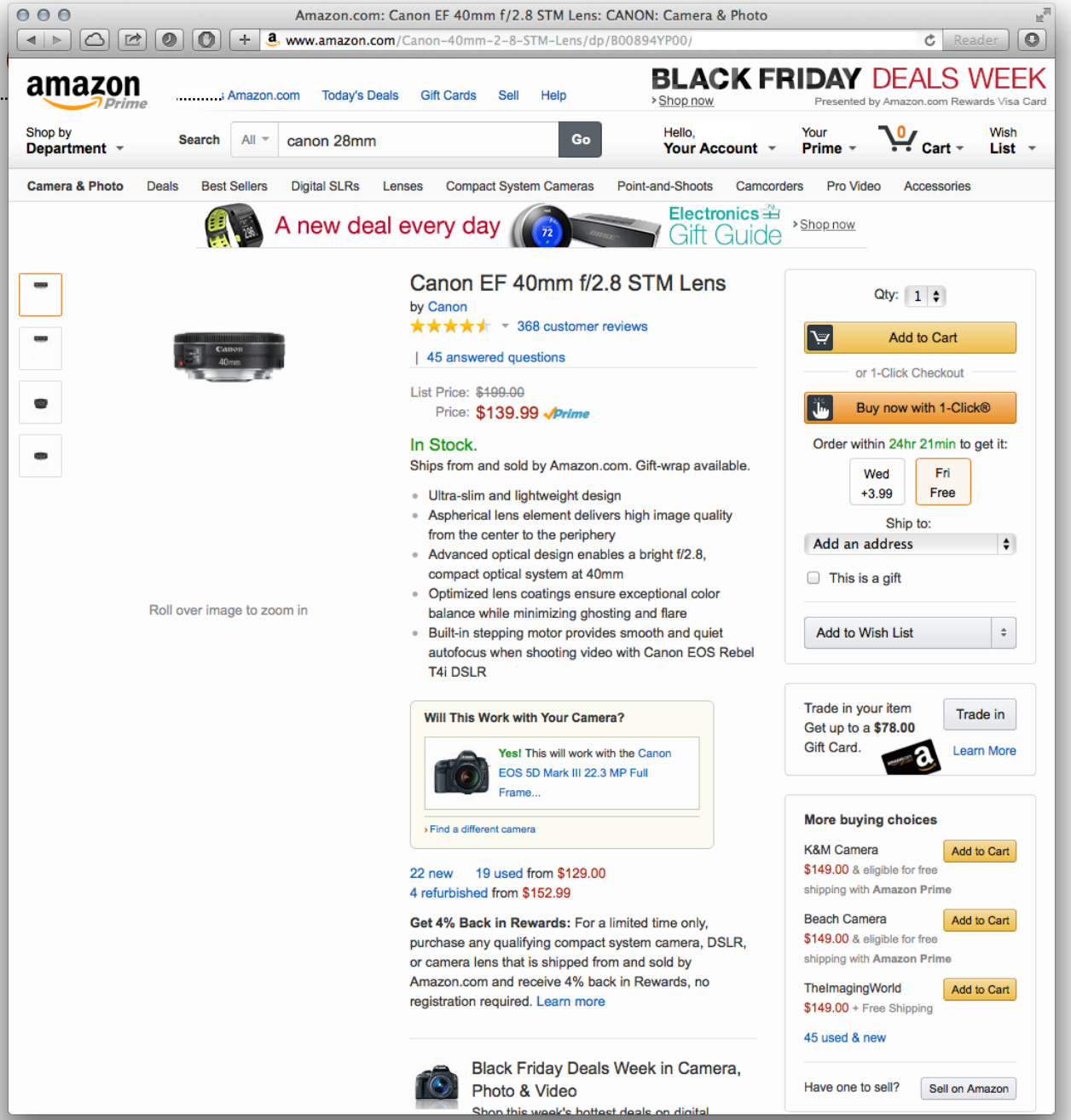
Examples of Microinteractions



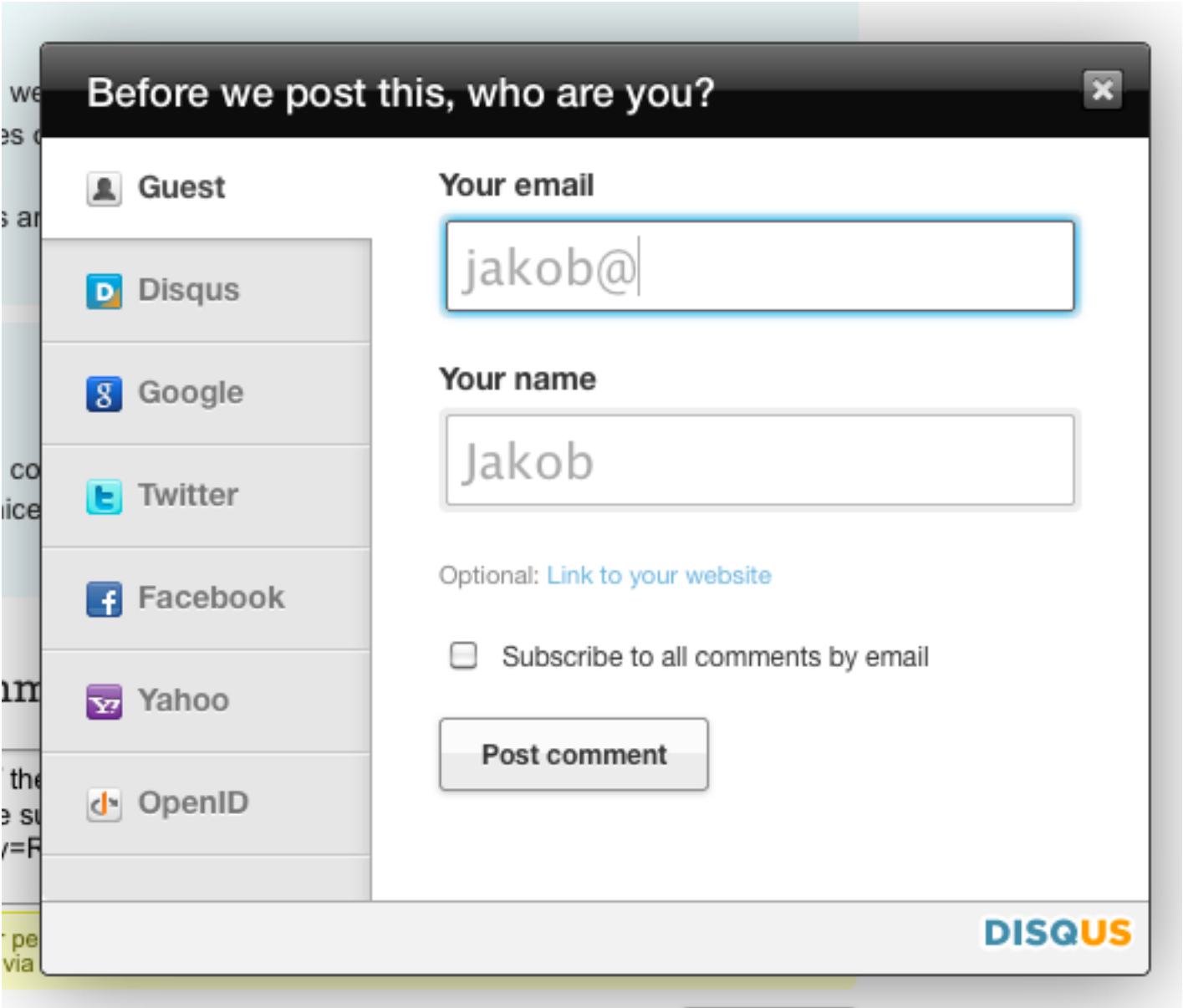
Mac caps lock alerts

Examples of Mi

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

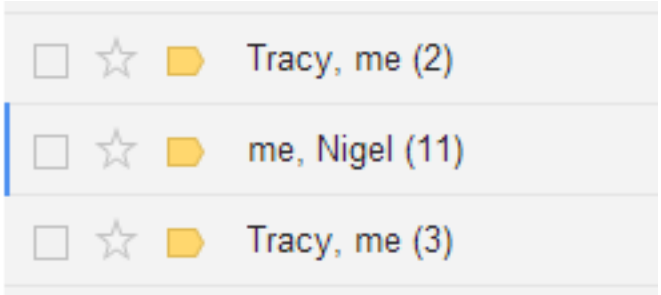


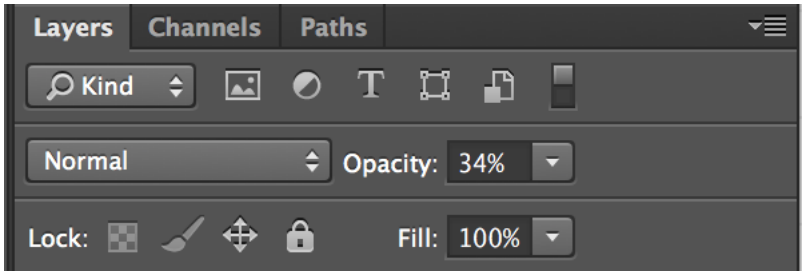
Examples of Microinteractions



The Disqus sign-up form guesses your name based on your email address

Examples of Microinteractions





Gmail attachment indication & last read mail highlight

The Structure of Microinteractions

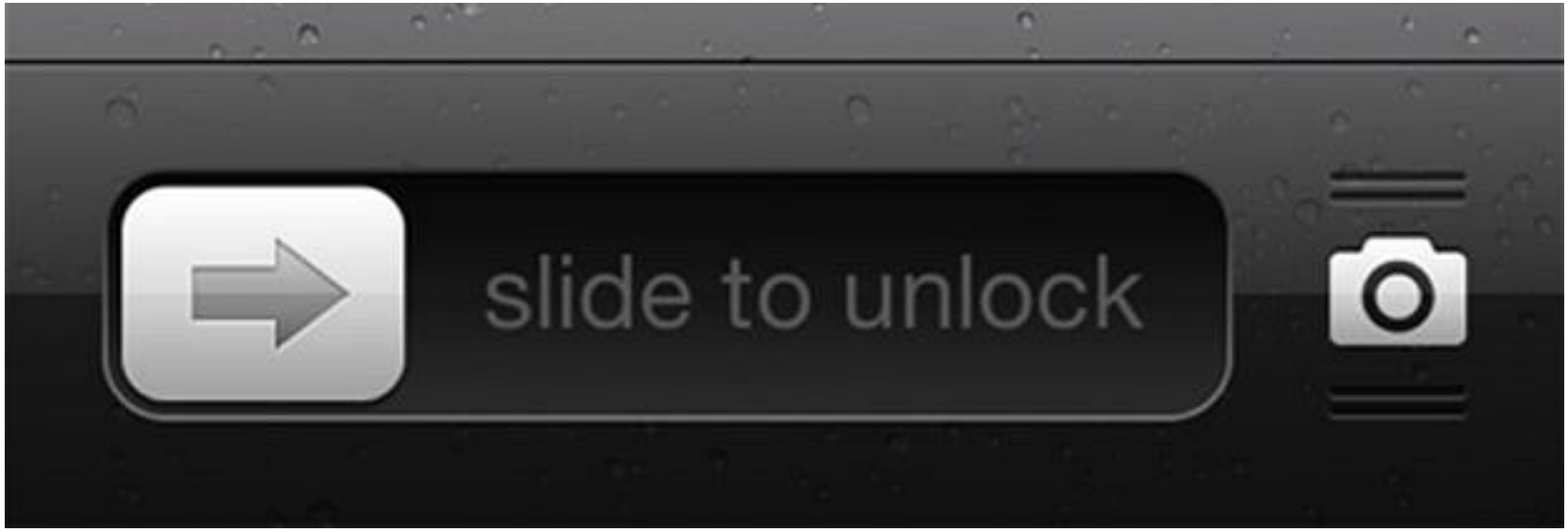
- A Trigger initiates a microinteraction
- The Rules determine what happens
- Feedback lets people know what's happening
- Loops and Modes determine the meta-rules of the microinteraction

1. Triggers

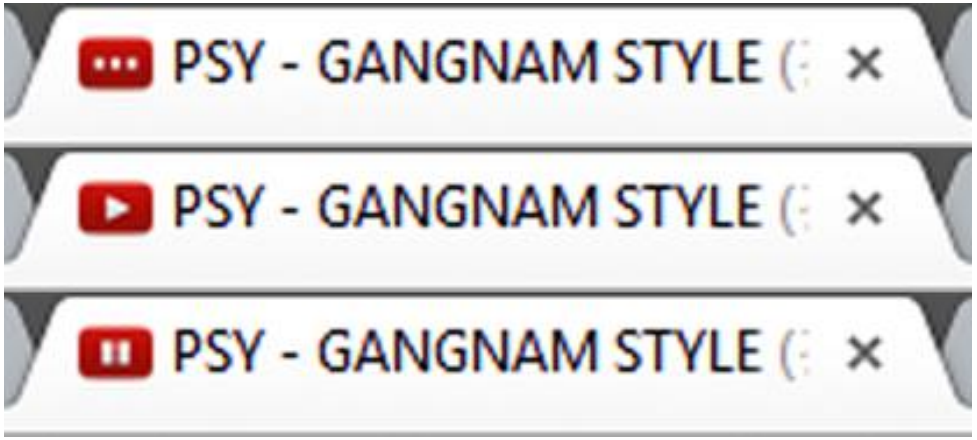
- A trigger is whatever initiates a microinteraction

- 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.



1. Triggers


PSY - GANGNAM STYLE
PSY - GANGNAM STYLE
PSY - GANGNAM STYLE


Verizon
12:27 AM
83%
“Remind me to inflate my tires tomorrow at 9 AM”
Just to be clear… did you mean October 21st, or October 22nd?
October 21st
October 22nd

1. Triggers

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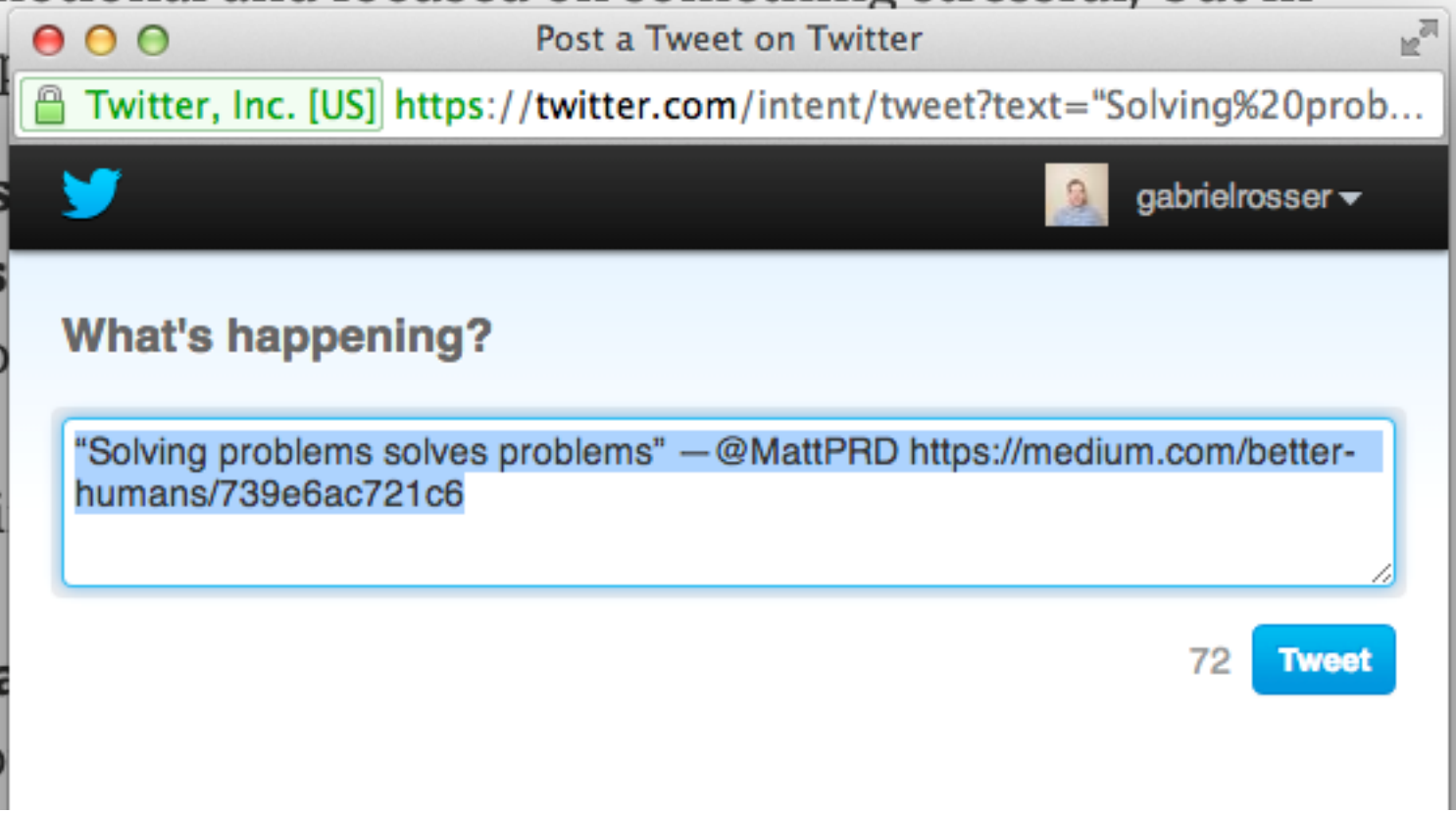
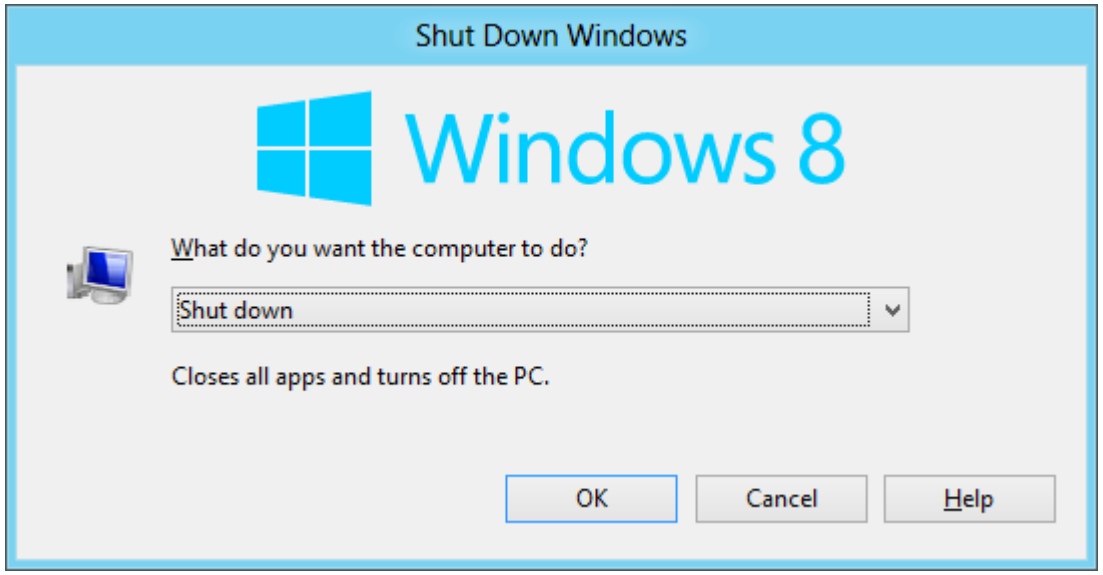
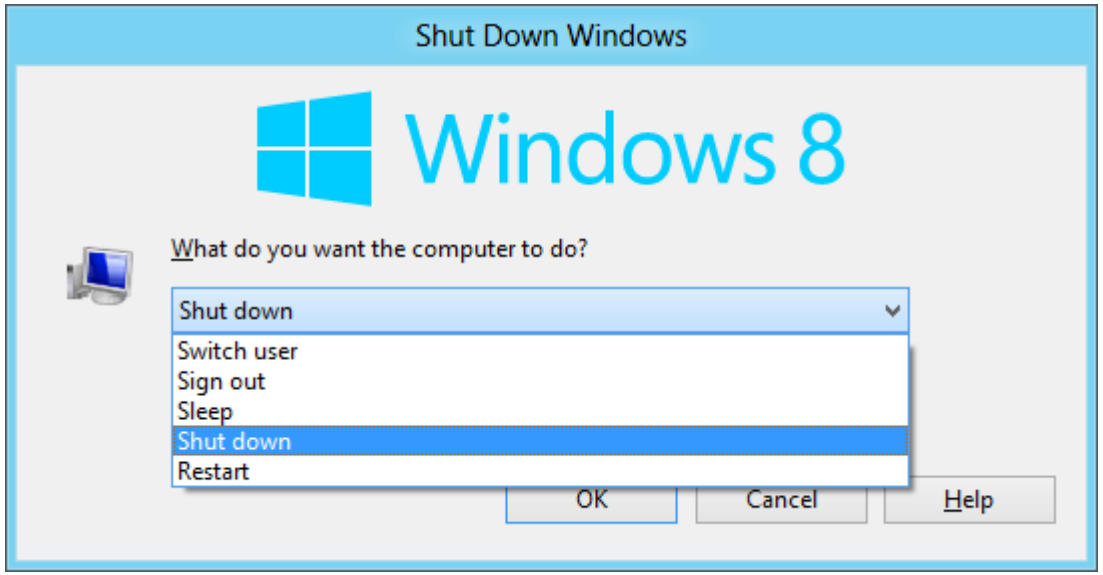


1. Triggers

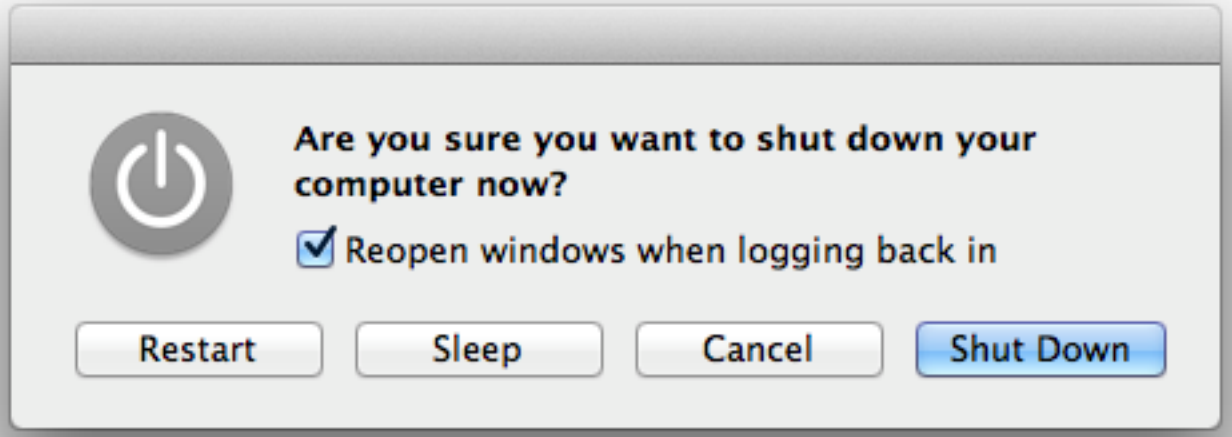
Delivery Status app - It detects if you have a tracking number on the clipboard on launch, and it also says from which courier

1. Triggers


Shut Down Windows
Windows 8
What do you want the computer to do?
Shut down
Closes all apps and turns off the PC.
OK
Cancel
Help


Shut Down Windows
Windows 8
What do you want the computer to do?
Shut down
Switch user
Sign out
Sleep
Shut down
Restart
OK
Cancel
Help

1. Triggers


Are you sure you want to shut down your computer now?
Reopen windows when logging back in
Restart
Sleep
Cancel
Shut Down

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 imp ortant 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

G&H Tea Services Paris Tea-Cup Strainer

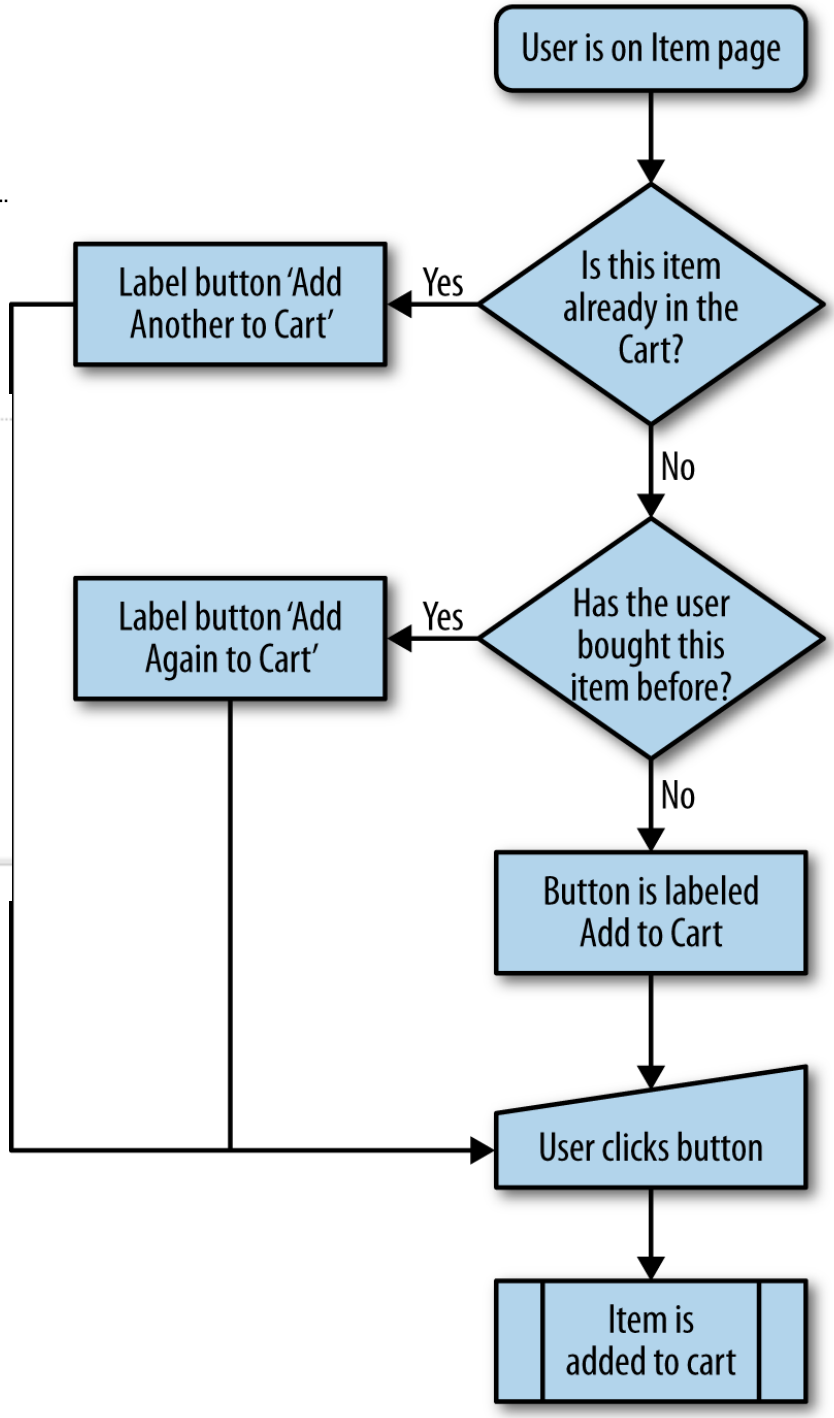
Are you sure? Close

Somebody may have purchased this for you recently.

Thanks, I want to proceed | Cancel

Tell me if it was purchased.

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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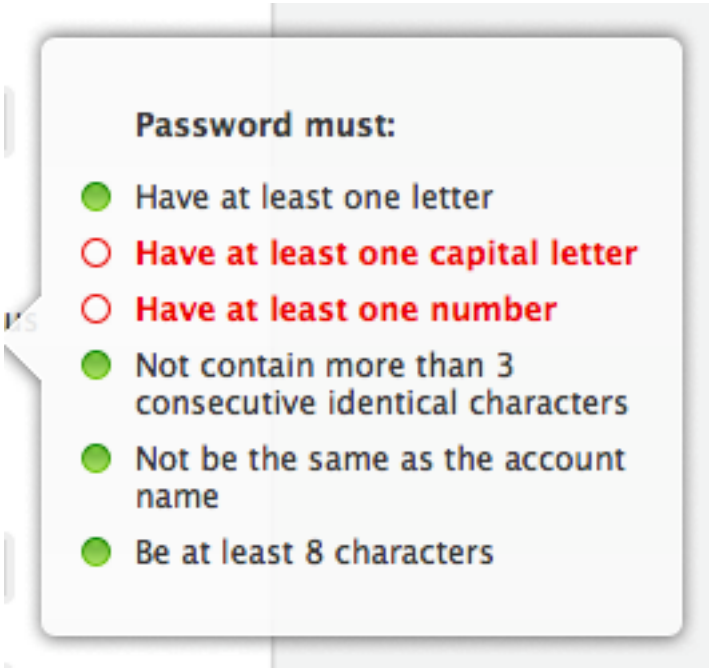
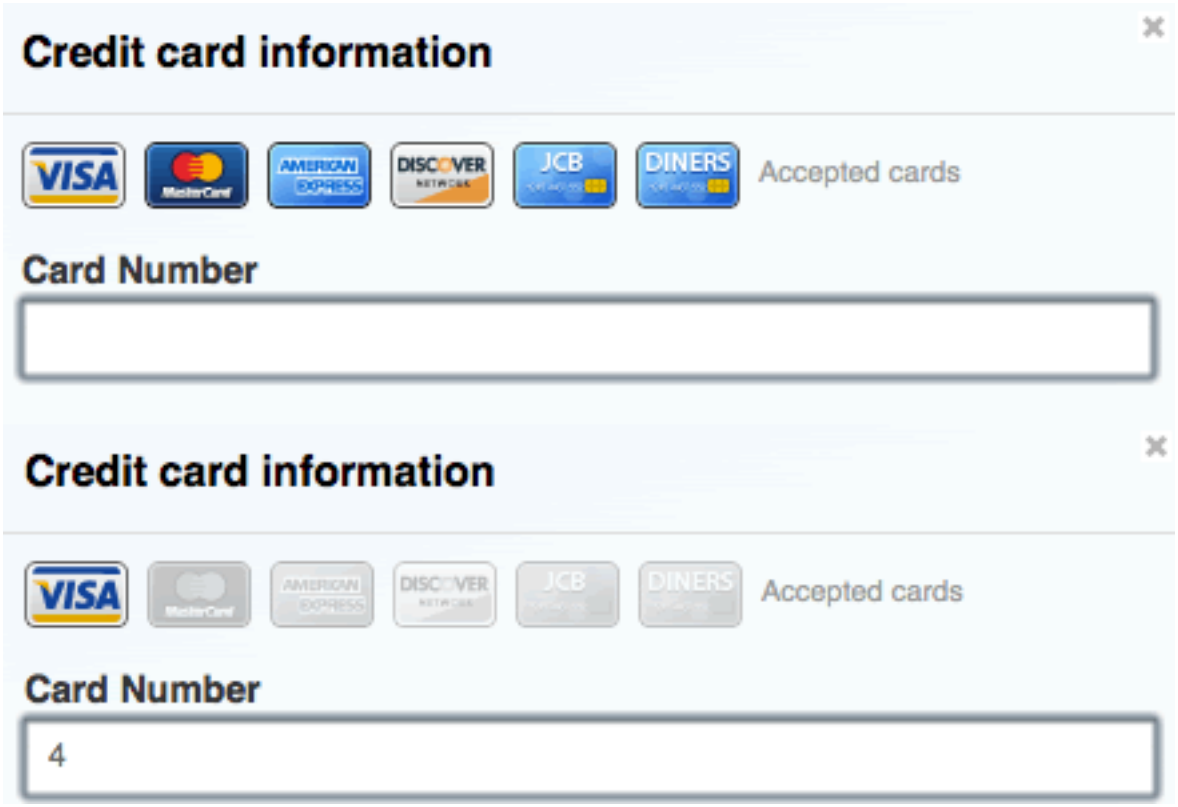
2. Rules



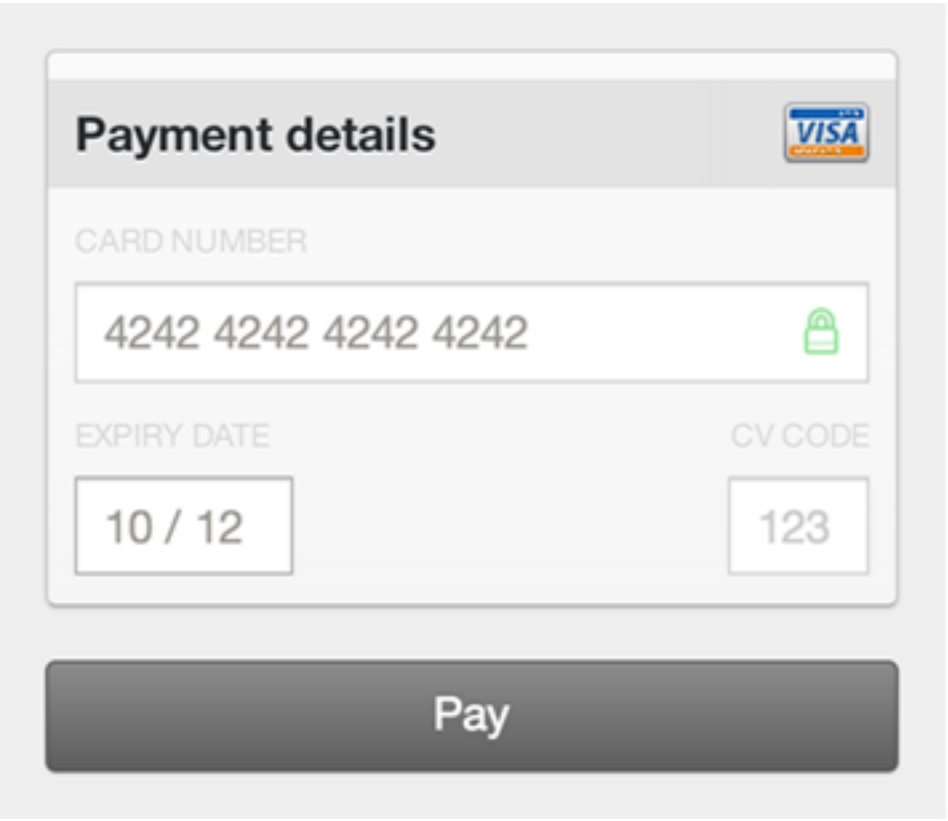
When changing your Apple ID password, must-have items are checked off progressively as the user enters them. It reveals and enforces the rules of the microinteraction at the same time.

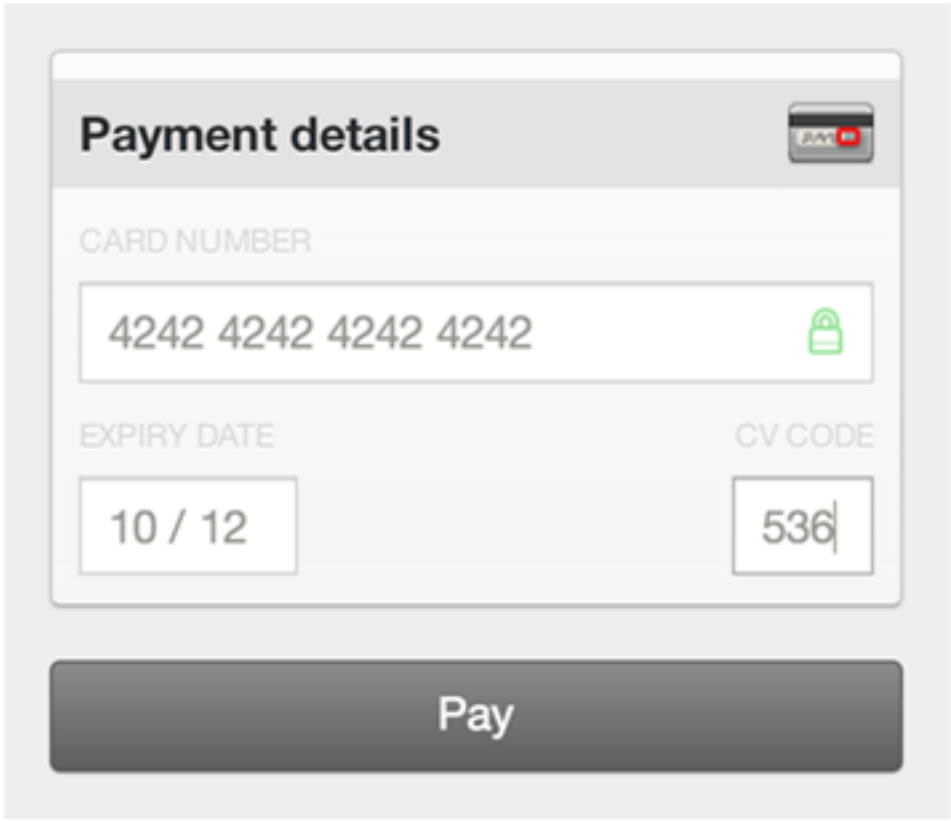
2. Rules



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

2. Rules

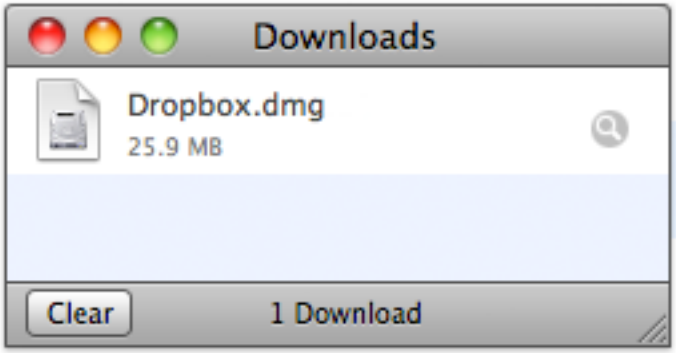




When it comes time to enter the CVV number, the image of the credit card flips over so that you can immediately see where the number would be.

2. Rules

Safari



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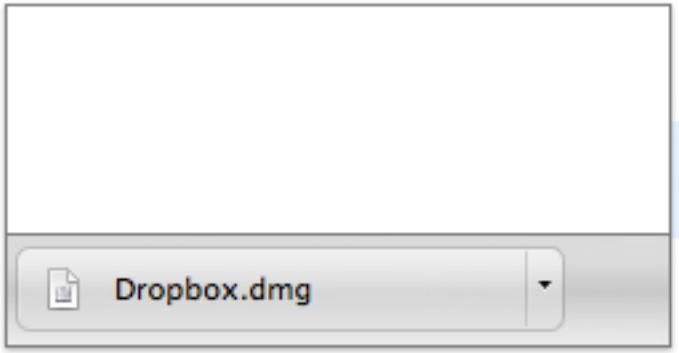

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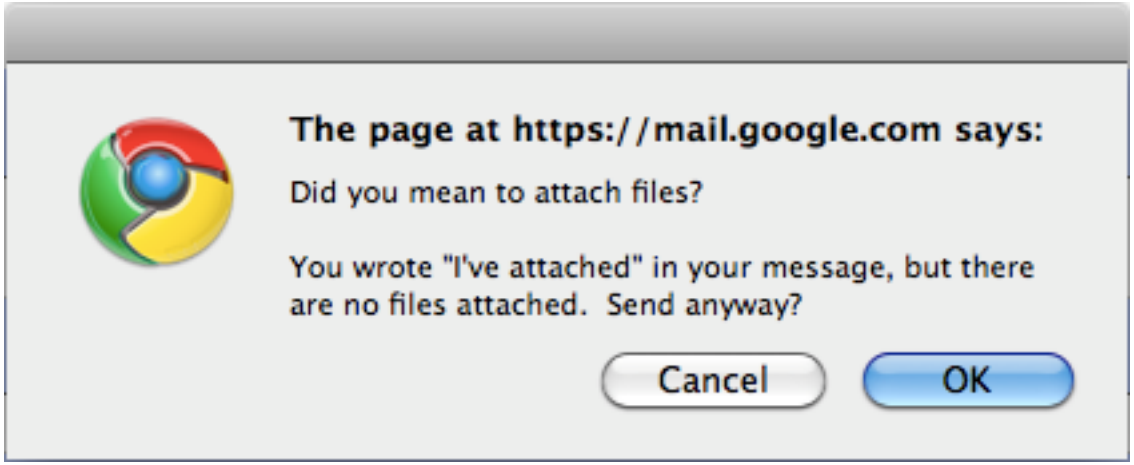
Dropbox changes the download instructions based on which browser you're using

2. Rules



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.

3. Feedback

- 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

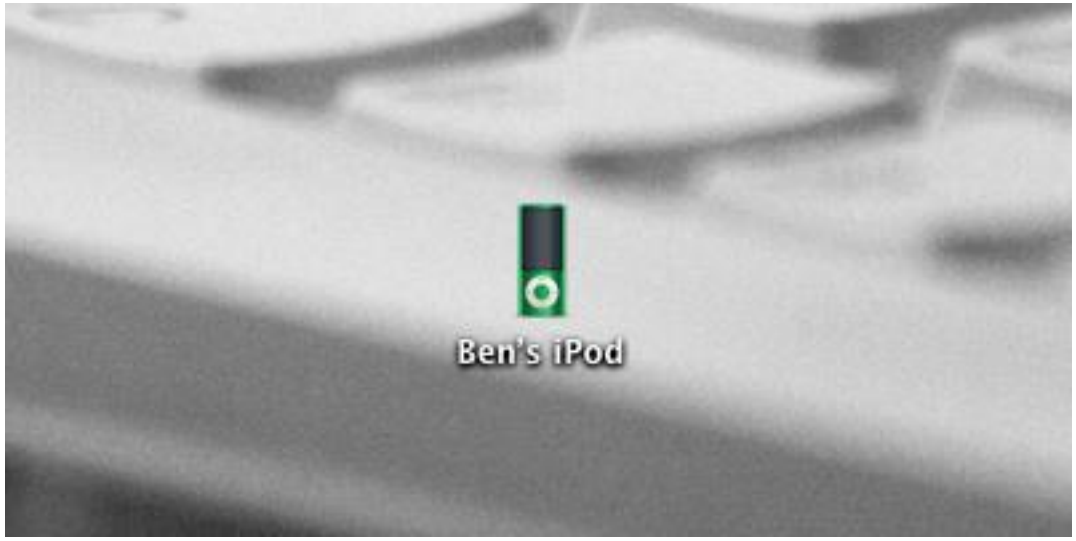
- The feedback should enable users to make a working mental model of the microinteraction. It should let users know what they can and cannot do with the microinteraction

- However care should be taken to not overburden users with too much feedback

3. 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 b
associated with supporting multiple color printers.
ENERGY STAR
Image Gallery
View
Delete
Hold
Job Info
Pause Printer
Printer Ready
Status
Name
MPC6501
243

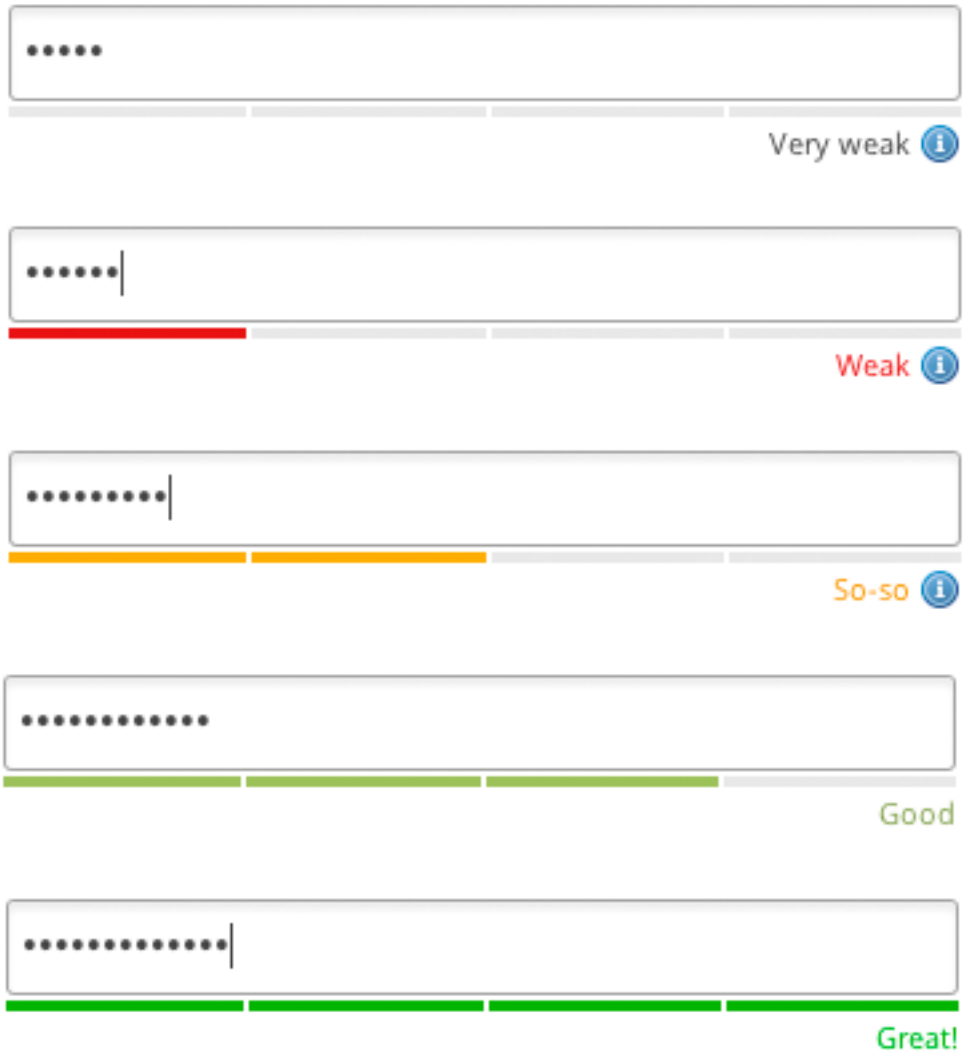
3. Feedback



3. Feedback

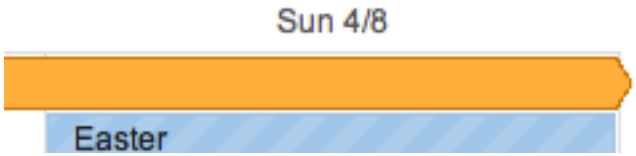

Building Shadow
in Hamburg at
5:15 pm
Satellit
Verkehr
Jungfernstieg
Jungfernstieg
Mio
Burberry
Deutschland
Jungfernstieg
ATG
Alster-Touristik
Mango
Douglas Parfümerie
H&M Herren
20 m
100 ft
Kartendaten ©2012 Cybercity, GeoBasis-DE/BKG (©2009), Google, LGV Hamburg -
Problem melden

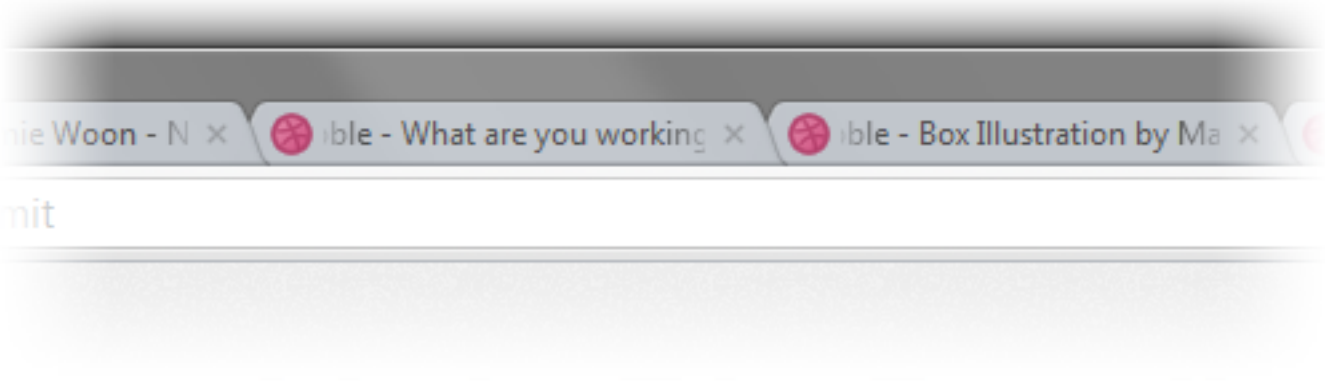
3. Feedback



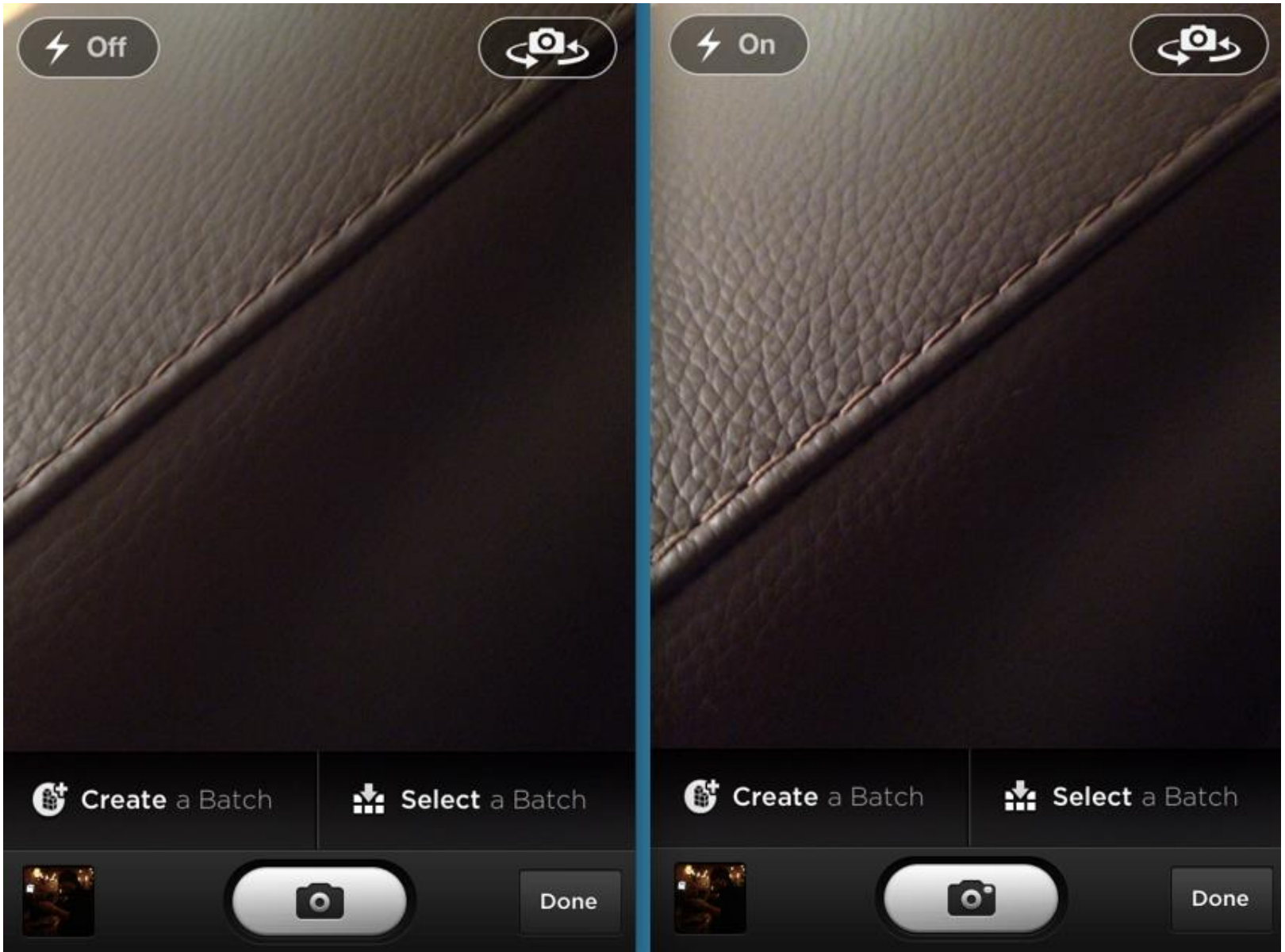
3. Feedback


file02g_Part02_Chap....doc
2.9/7.0 MB, 9 secs left
file03_Part03_09191....docx
Opening in 12 secs...

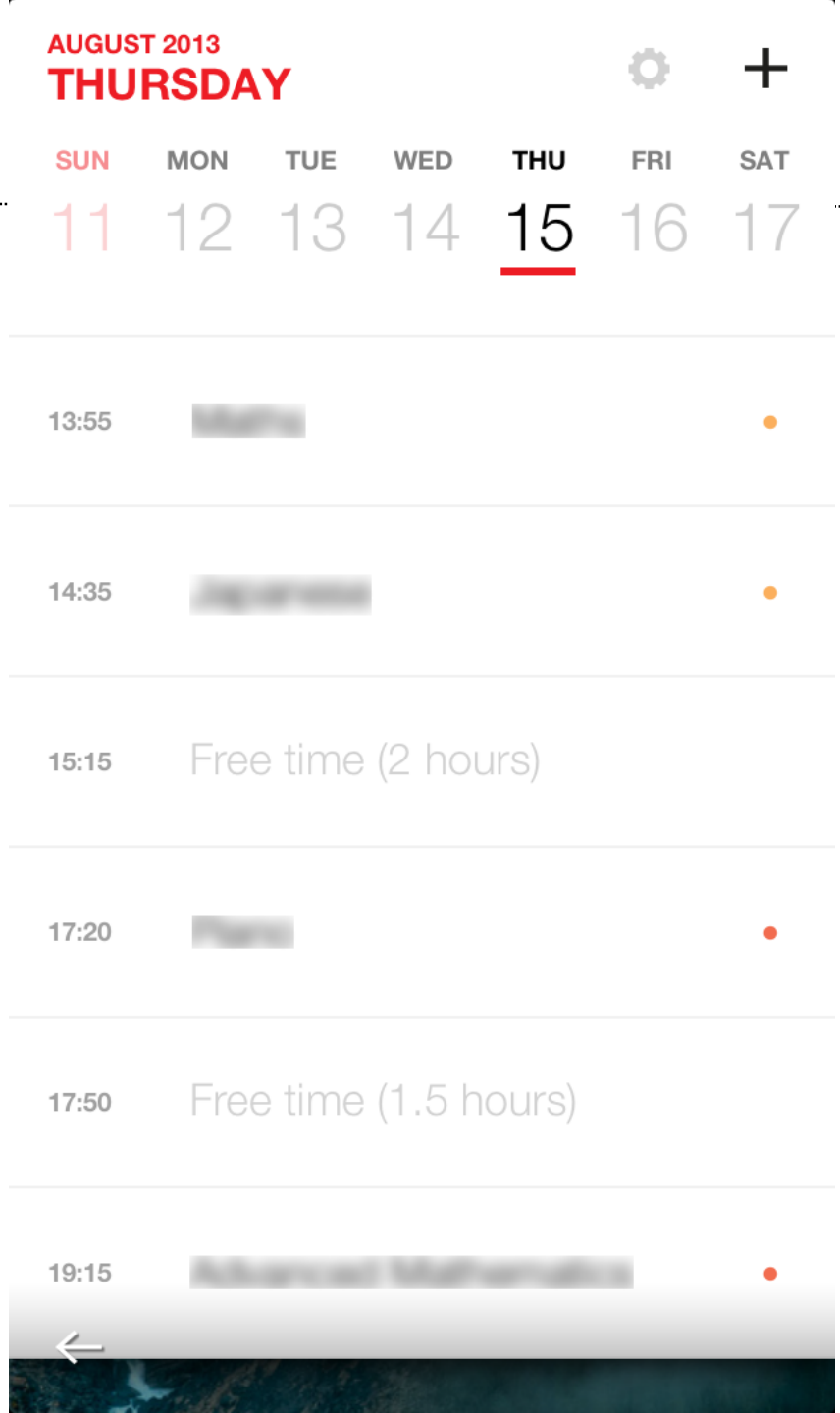

Sun 4/8
Easter


ble - What are you working
ble - Box Illustration by Ma

3. Feedback


Off
Create a Batch
Select a Batch
Done
On
Create a Batch
Select a Batch
Done

3. Feedback


AUGUST 2013
THURSDAY
SUN MON TUE WED THU FRI SAT
11 12 13 14 15 16 17
13:55
14:35
15:15
Free time (2 hours)
17:20
17:50
Free time (1.5 hours)
19:15

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 user-initiated action. Add sound and haptics for emphasis and alerts.

4. Loops and Modes

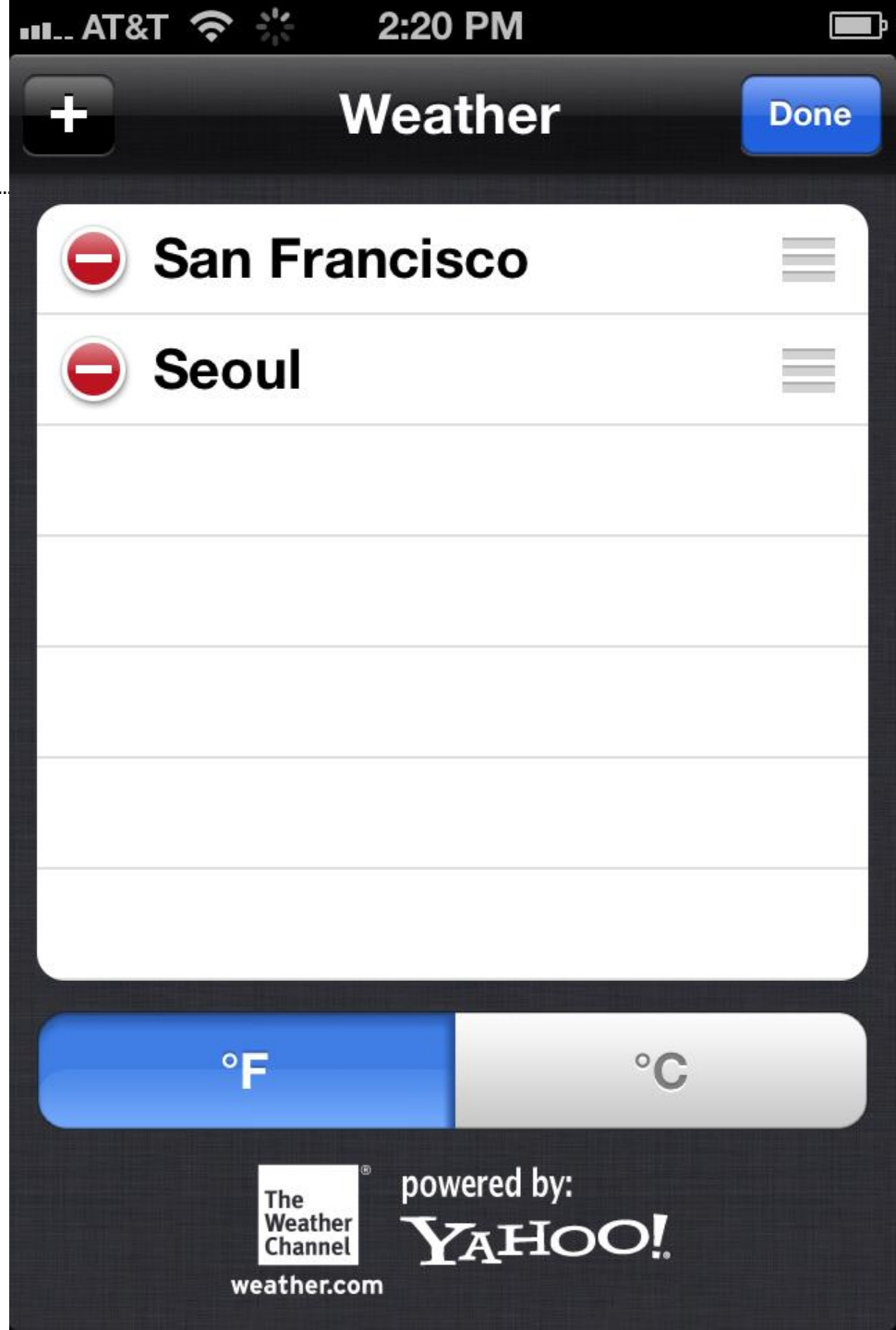
- A mode, is a special part of an application in which the app operates differently than usual. Often, this means actions like pressing a key does something else when in a particular mode.

- A mode is a fork in the rules, and for microinteractions, modes should be used very, very sparingly.

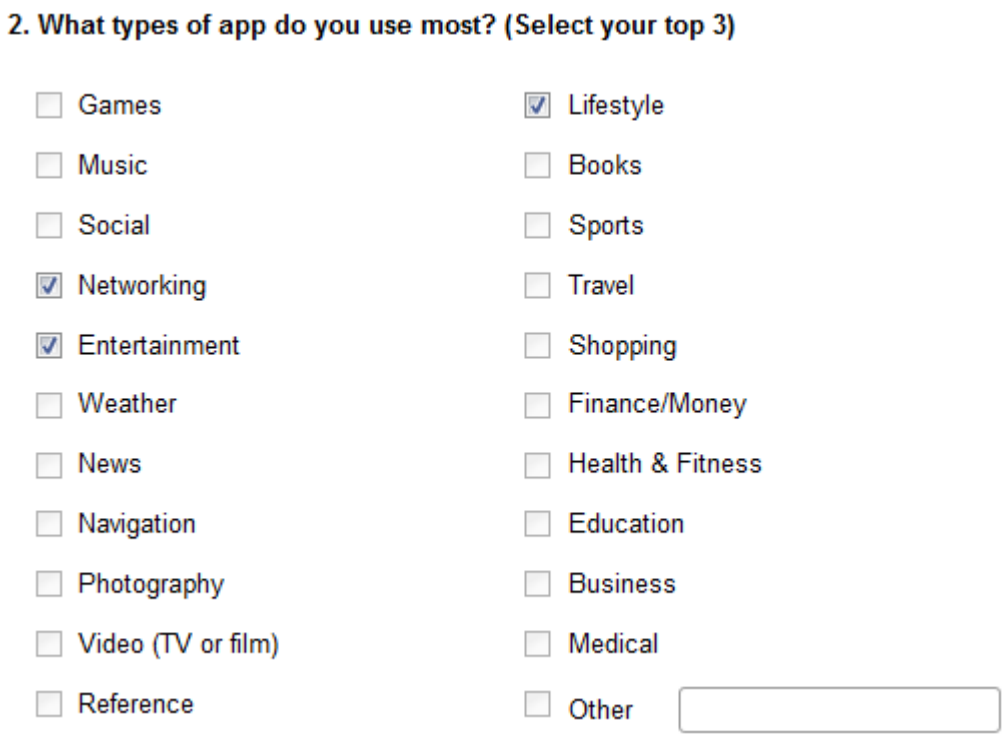
- A loop is a cycle that repeats, usually for a set duration.

- “Get data every 30 seconds” or “logout after three minutes, if no activity” or “Send a reminder in 10 days” are all example indicators that a loop is involved

4. Loops and Modes



4. Loops and Modes



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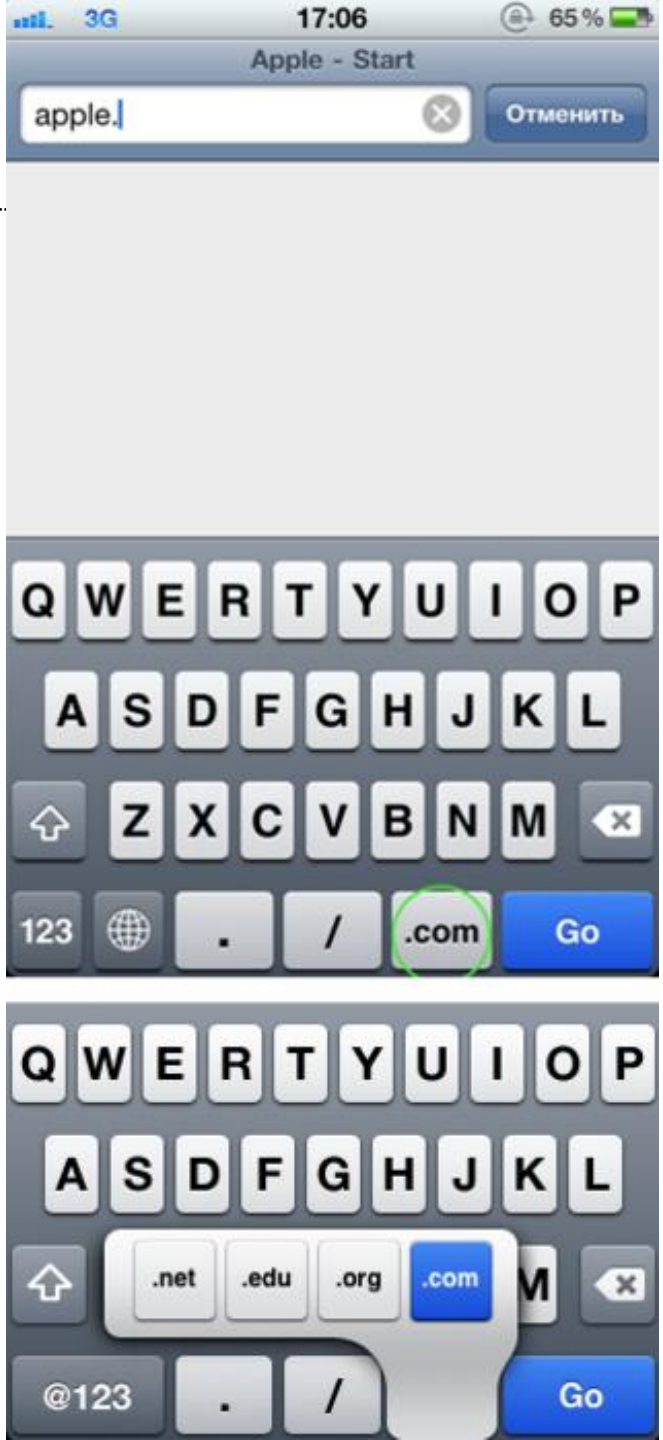

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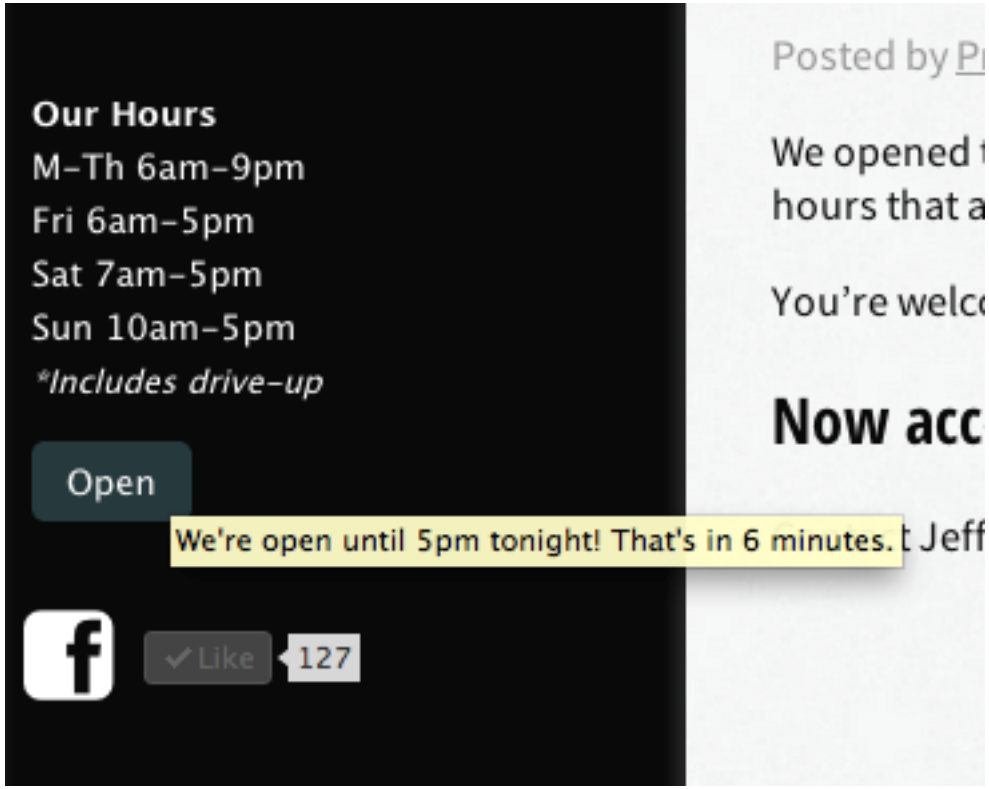

4. Loops and Modes – things to remember

- Only have a mode when there is an infrequent action that might otherwise clutter the microinteraction

- If you must have a mode, make it its own screen when possible

- Use loops to extend the life of a microinteraction

- Use long loops to give the microinteraction memory or to progressively disclose or reduce aspects of the microinteraction over time