Usability Evaluation

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Usability Evaluation Methods

- Heuristic evaluations

- Cognitive walkthroughs

- Usability testing

- Comparison against guidelines

Usability Testing

System Usability Scale

	Strongly disagree				Strongly agree
1. I think that I would like to use this system frequently	1	2	3	4	5
2. I found the system unnecessarily complex	1	2	3	4	5
3. I thought the system was easy to use	1	2	3	4	5
4. I think that I would need the support of a technical person to be able to use this system	1	2	3	4	5
5. I found the various functions in this system were well integrated	1	2	3	4	5
6. I thought there was too much inconsistency in this system	1	2	3	4	5
7. I would imagine that most people would learn to use this system very quickly	1	2	3	4	5
8. I found the system very cumbersome to use	1	2	3	4	5
9. I felt very confident using the system	1	2	3	4	5
10. I needed to learn a lot of things before I could get going with this system	1	2	3	4	5

NASA Task Load Index

Hart and Staveland's NASA Task Load Index (TLX) method assesses work load on five 7-point scales. Increments of high, medium and low estimates for each point result in 21 gradations on the scales.

Name	Task	Date

Mental Demand — How mentally demanding was the task?

Very Low ——————————————— Very High

Physical Demand — How physically demanding was the task?
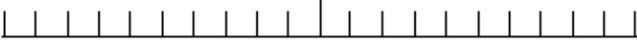
Very Low ——————————————— Very High

Temporal Demand — How hurried or rushed was the pace of the task?

Very Low ——————————————— Very High

Performance — How successful were you in accomplishing what you were asked to do?

Perfect ——————————————— Failure

Effort — How hard did you have to work to accomplish your level of performance?

Very Low ——————————————— Very High

Frustration — How insecure, discouraged, irritated, stressed, and annoyed wereyou?
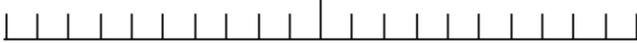
Very Low ——————————————— Very High

10 Usability Heuristics

by Jakob Nielsen

1. Visibility of system status

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

United Airlines Flight 410
On-time - departs in 1 hour 41 mins

PDX ✈————• DEN

Departs Portland, today

Time	Terminal	Gate
11:48 AM	-	E2

Arrives Denver, today

Scheduled 3:18 PM	Terminal	Gate
3:17 PM	-	B27

United Airlines Flight 410
Delayed (21 mins) - arrives in 57 mins

PDX •—✈—• DEN

Departs Portland, today

Scheduled 11:48 AM	Terminal	Gate
11:49 AM	-	E2

Arrives Denver, today

Scheduled 3:18 PM	Terminal	Gate
3:39 PM	-	B27

Sending Tweet

1. Visibility of system status

Like how Twitter tells you when it's publishing a tweet and makes a chirp sound when it's done

United Airlines Flight 410
On-time - departs in 1 hour 41 mins

PDX ✈————• DEN

Departs Portland, today

Time	Terminal	Gate
11:48 AM	-	E2

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Sending Tweet

Or how the colour and position of the plane changes on Google search results to indicate if a flight is on time

1. Visibility of system status

Don't keep your users guessing.

Would it be better if the system told you how much space you have on your drive before you begin a file transfer?

2. Match between system and the real world

The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.
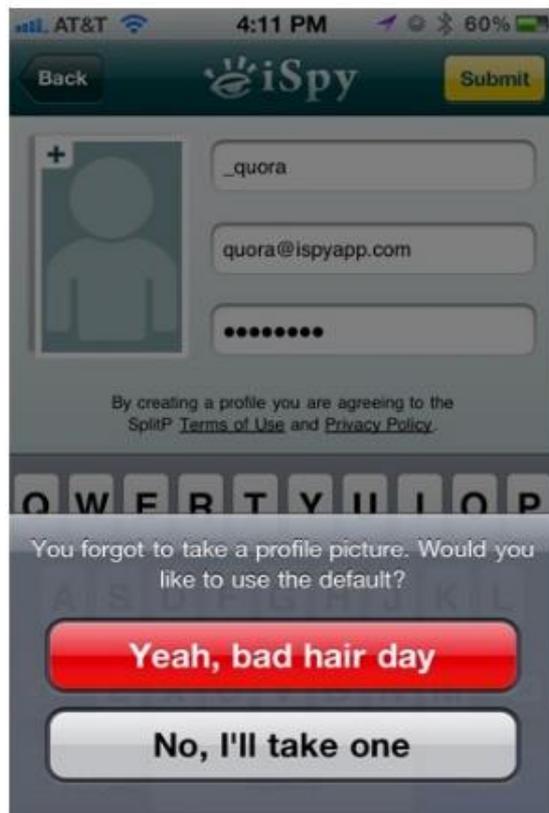
2. Match between system and the real world

Buttons can be like real world conversations
instead of labels.

Clearer and more effective than "FAQs"
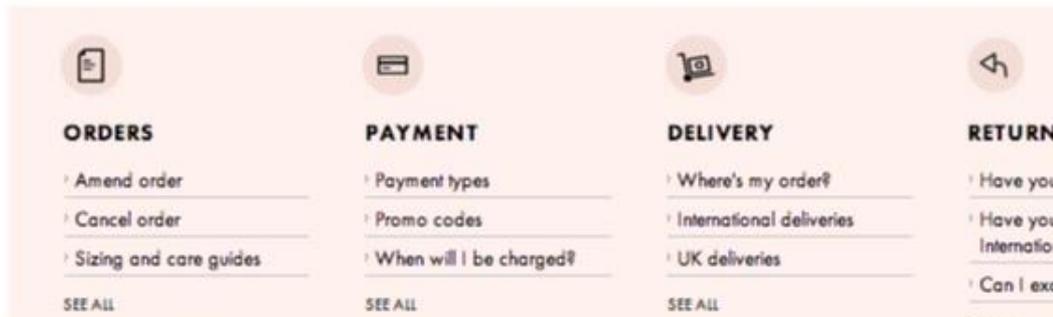
2. Match between system and the real world

Ø Refrain from confusing people with system oriented language and design.

oops, there is a problem

Target.com requires **cookie** to be enabled.

continue if enabled

3. User control and freedom

Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

Sending... Cancel

Your message has been sent. Undo View message

Your Cart
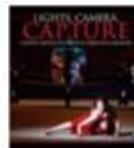
Lights, Camera, Capture
12th edition. Bob Davis
ISBN-10: 047054953X
ISBN-13: 9780470549537

Chapter 1: Introduction $1.99

Chapter 4: Lighting Equipment $1.99

Enter promo code   APPLY   Amount Due: $3.98

3. User control and freedom

Allow people to change or delete items in a shopping cart as seen in this example from Inkling. It's also useful to allow them to continue shopping.

Sending... Cancel

Your message has been sent. Undo View message

Ever felt the need for an undo button after sending an email to the wrong person?

It's a good thing Gmail allows that.

Your Cart
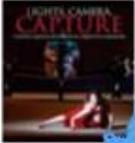
Lights, Camera, Capture
12th edition. Bob Davis
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ISBN-13: 9780470549537

| Chapter 1: Introduction | $1.99 |
| Chapter 4: Lighting Equipment | $1.99 |

Enter promo code   APPLY   Amount Due: **$3.98**

3. User control and freedom

There is no way to undo a text edit on Android!
Avoid pissing the user off by giving him no choice to revert to an earlier state.
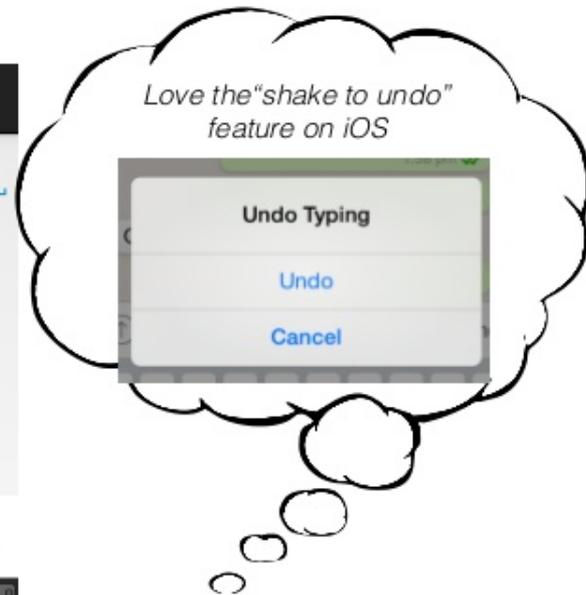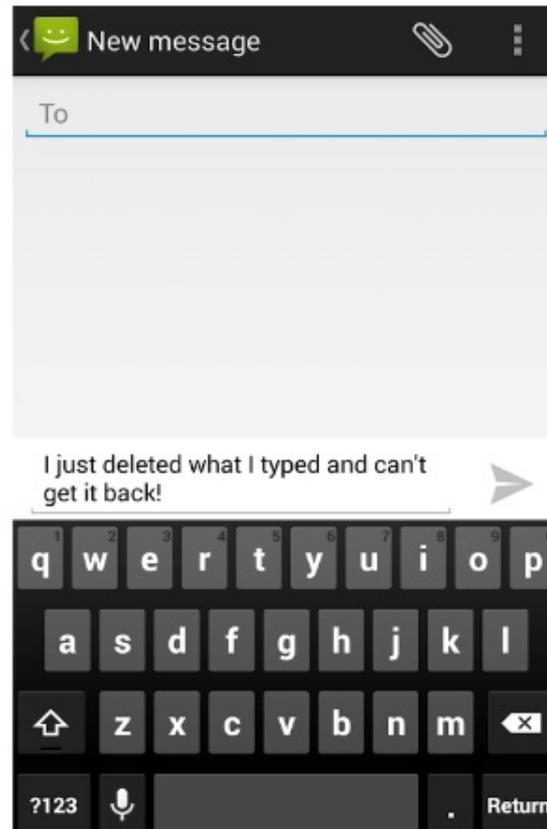
4. Consistency and standards

Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.
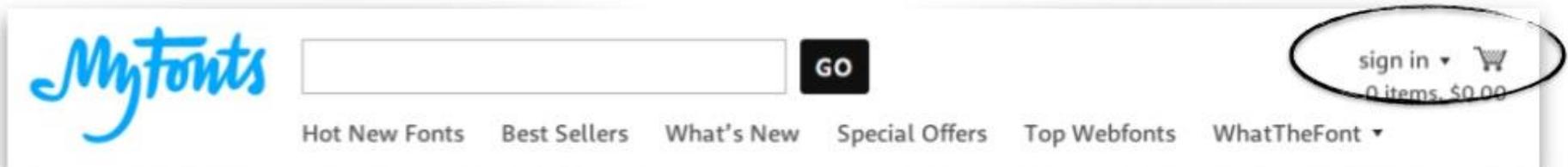
4. Consistency and standards

As a convention, people expect call to actions like Sign In to be at the top right on any website
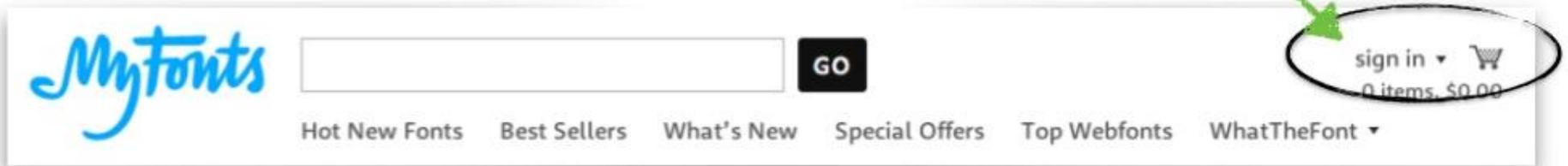
4. Consistency and standards

One would expect the knob to be the volume control, but it's not.

Similar functions have different shortcuts in Adobe's various software.
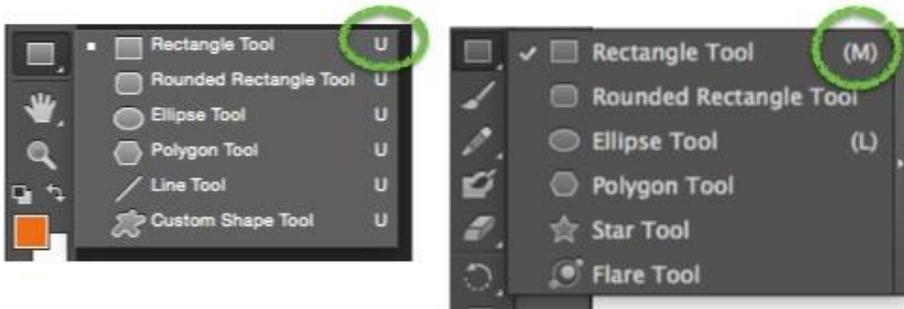
5. Error prevention

Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.

Hi,

Please find attached the latest wireframes.

The page at https://mail.google.com says:

It seems like you have forgotten to attach a file.

You wrote "find attached" in your message, but there are no files attached. Send anyway?

Cancel   OK

$ 1000.00 per day   Save   Cancel

Actual daily spend may vary. ?

⚠ Your new budget is much larger than your previous one. If you're sure, click 'Save' again.
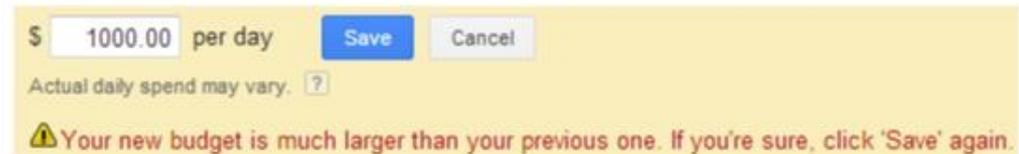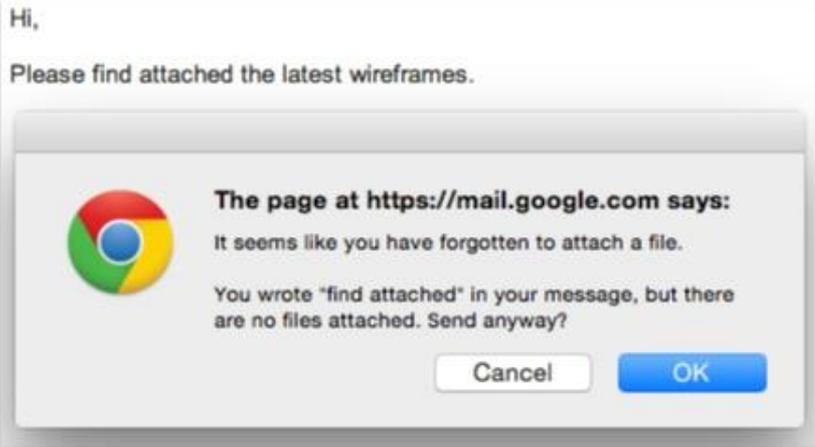
5. Error prevention

Gmail prompts you when you forget to insert an attachment

Hi,

Please find attached the latest wireframes.

The page at https://mail.google.com says:

It seems like you have forgotten to attach a file.

You wrote "find attached" in your message, but there are no files attached. Send anyway?

Cancel   OK

$ | 1000.00 | per day   Save   Cancel

Actual daily spend may vary. [?]

⚠ Your new budget is much larger than your previous one. If you're sure, click 'Save' again.

On Google Ads, if you input a budget much larger than your previous one, the system checks with you if you really meant to do so.

5. Error prevention

Facebook does not try and prevent you from posting an ad that is against its guidelines. e.g. There is no way for a first time user to assume that his ad might get pulled off mid-campaign because Facebook might later find it inappropriate.

6. Recognition rather than recall

Minimise the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.
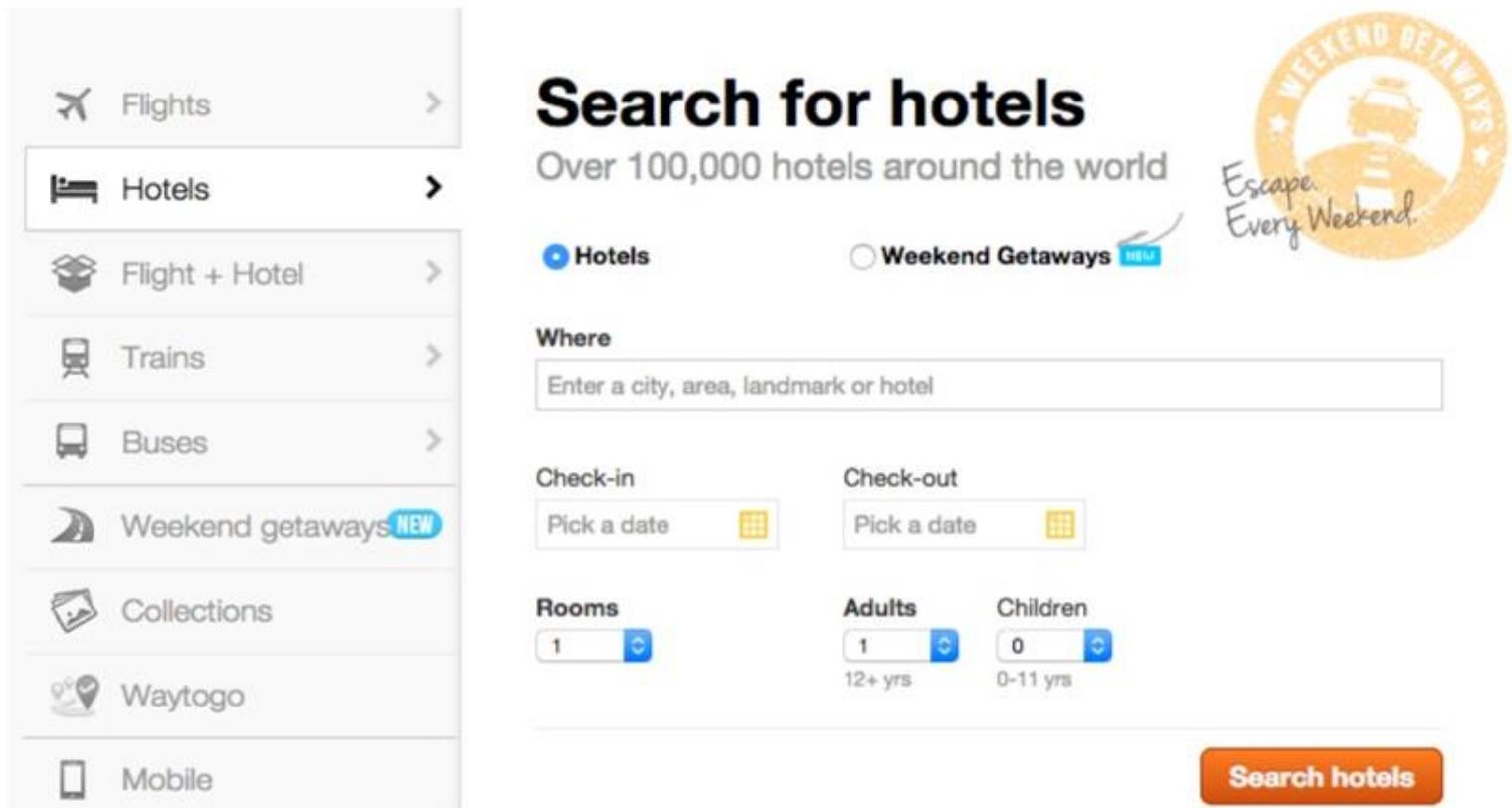
6. Recognition rather than recall

Clear proposition

Search for hotels

Over 100,000 hotels around the world

Instructions prompting the user to explore

A single bold call to action leaves no room for distraction

6. Recognition rather than recall

🚫 *Important actions should be easy to access and identify.*

In an earlier version of Windows 8, it was almost impossible to shut down the computer without googling how to do it.


How To Shutdown Windows 8

1. Close all desktop apps you have opened.

2. Swipe in from the right edge of the screen, and then tap Settings. If you're using a mouse, point to the upper-right corner of the screen, move the mouse pointer down, and then click Settings.

7. Flexibility and efficiency of use

Accelerators - unseen by the novice user - may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

7. Flexibility and efficiency of use

Advanced users can use filters on Google Images to narrow down their search results.
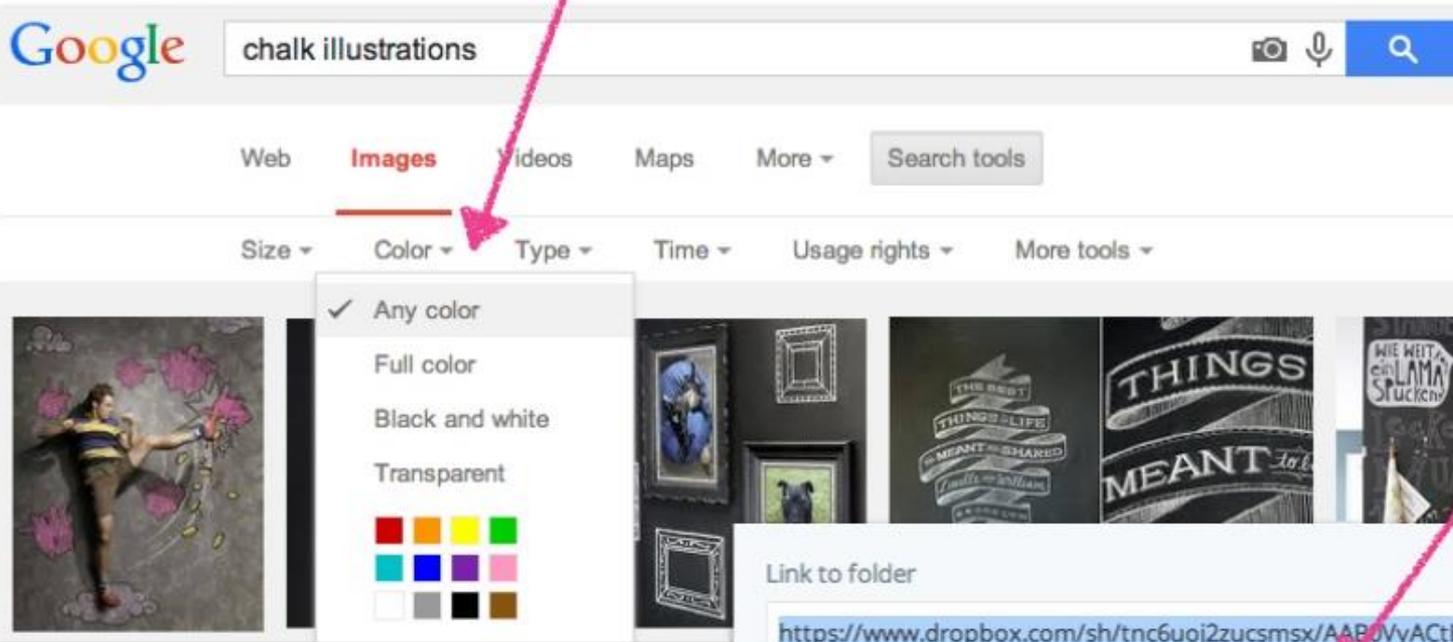
When you share a file on Dropbox, you can simply copy the link, or set advanced options.
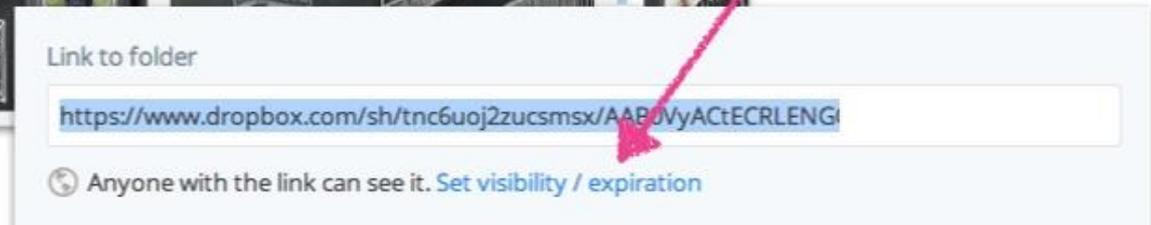
7. Flexibility and efficiency of use

🚫 *This feature request highlights the frustration of an advanced user not being able to customise default features.*

810 votes

Vote

Please allow custom labels for phone numbers, emails, addresses. home 1, home 2, work 1, work 2 just doesn't cut it any more.

Please allow custom labels for phone numbers, emails, addresses. home 1, home 2, work 1, work 2 just doesn't cut it any more.

I want to label multiple telephone numbers for a frequent traveler as "mobile (usa)" or "mobile (aus)" or mobile (eur). Or for my favorite pizza chain as downtown and midtown. Or I don't want to create my customer's secretary as a separate contact instead I want to put her under my customer's contact card and label her phone as "Cindy".

NEW PHONE CONTACT

photo

name

⊕ phone

⊕ email

⊕ ringtone

website
www.windowsphonerocks.com

⊕ other
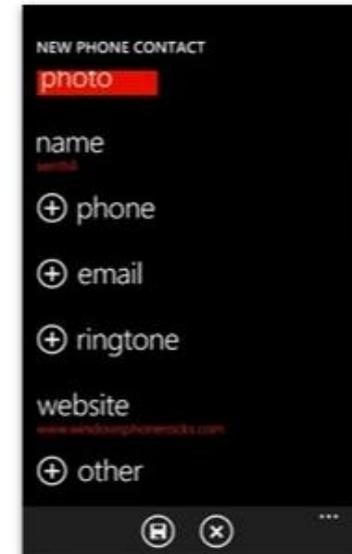
8. Aesthetic and minimalist design

Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

8. Aesthetic and minimalist design

Dieter Ram's designs reflect this principle. "Less, but better – because it concentrates on the essential aspects, and the products are not burdened with non-essentials."
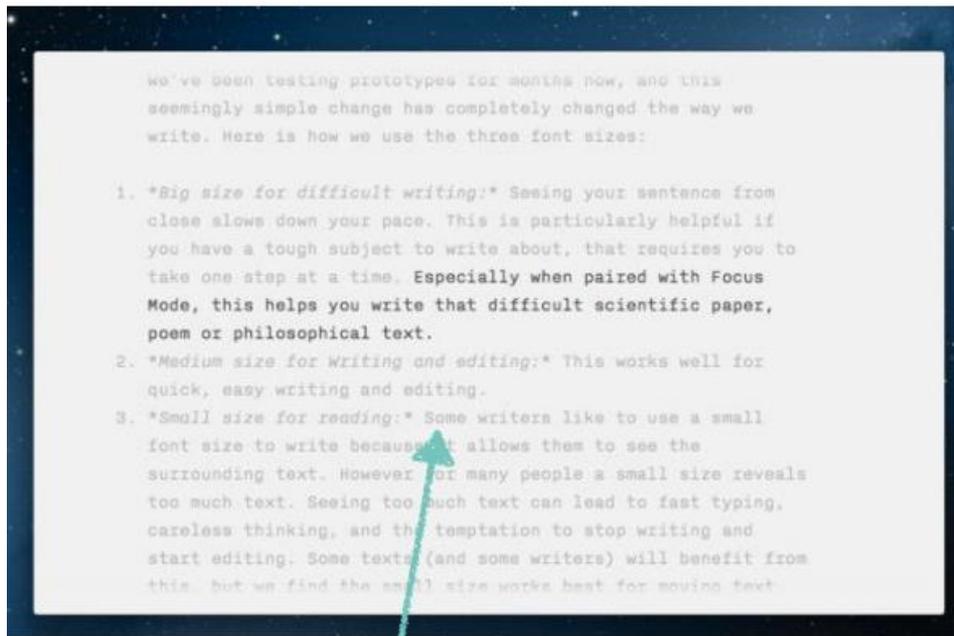
The iA Writer app is a clean typing sheet with no distractions in the interface. It allows you to focus on what you're writing and hides everything else.

8. Aesthetic and minimalist design

⊘ *Avoid overloading the interface with features . Examine every element and ask - is this really needed?*
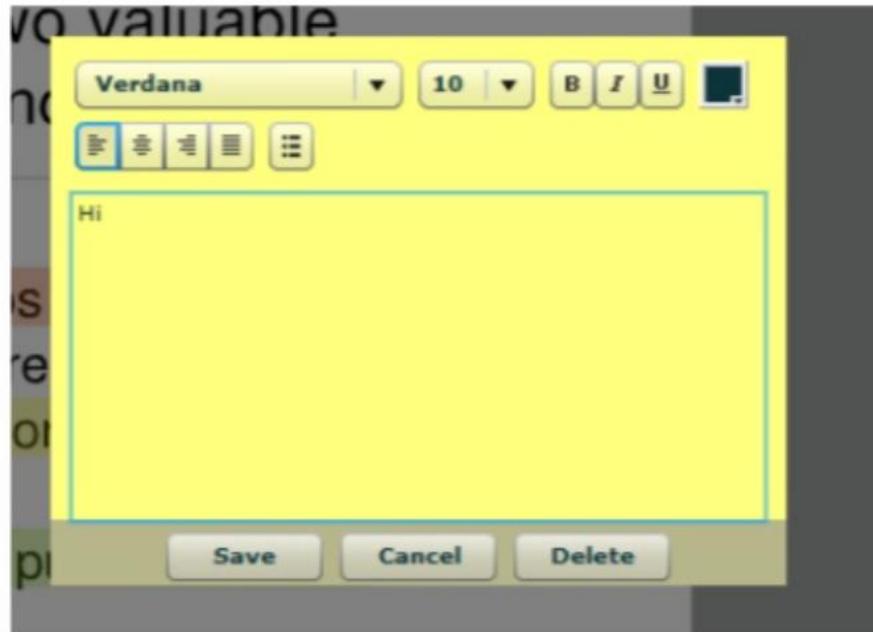
9. Help users recognize, diagnose, and recover from errors

Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.
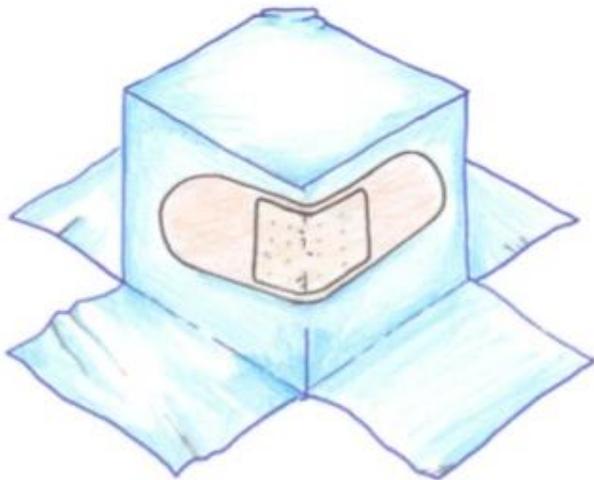
Error

Something went wrong. Don't worry, your files are still safe and the Dropboxers have been notified. Check out our Help Center and forums for help, or head back to home.

mint.com

ERROR 404

Page not available. But Justin is.

Justin is a Mint developer who likes slow cars, sharp crayons, reheated pizza and awkward silence. Email him at justin [at] mint.com.

But if you're more interested in personal finance than in Justin, try the links below:

9. Help users recognize, diagnose, and recover from errors

An assuring error message on Dropbox
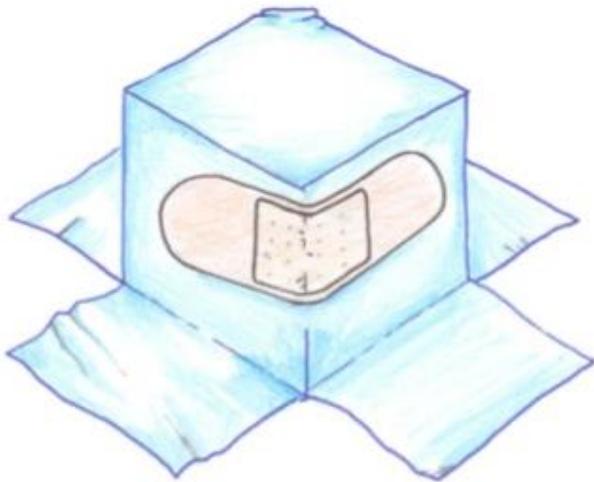
A funny message keeps the audience engaged, while relevant links make sure they stay on your website.

Error

Something went wrong. Don't worry, your files are still safe and the Dropboxers have been notified. Check out our Help Center and forums for help, or head back to home.

mint.com

ERROR 404

Page not available.
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But if you're more interested in personal finance than in Justin, try the links below:

# 9. Help users recognize, diagnose, and recover from errors

Don't tell people that something's broken and can't be fixed.
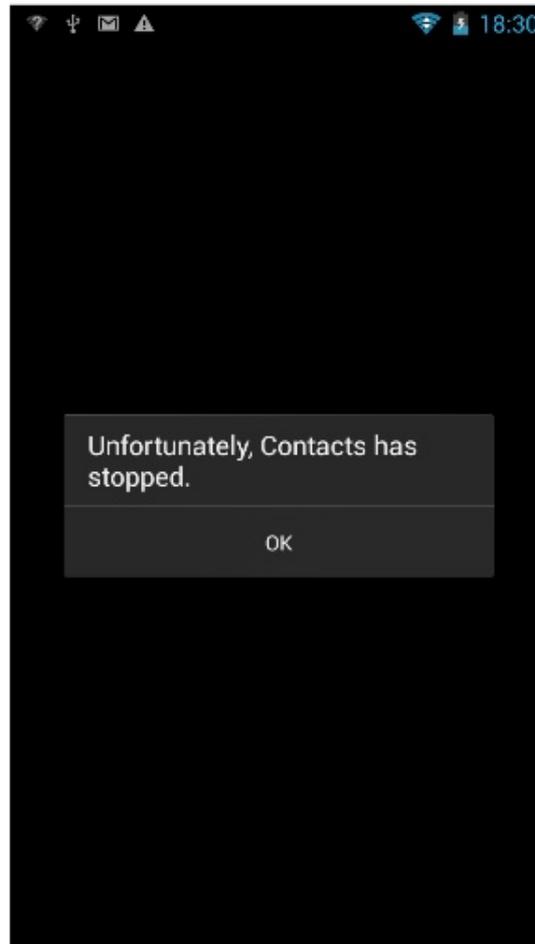
10. Help and documentation

Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.
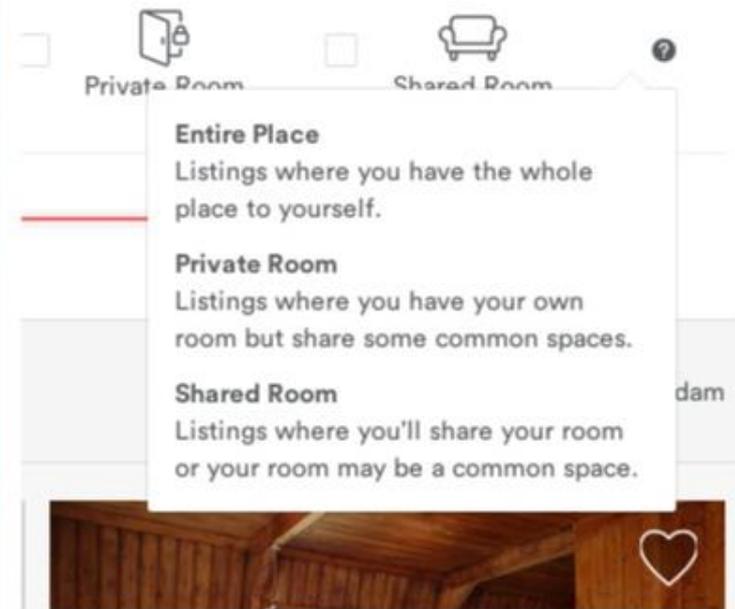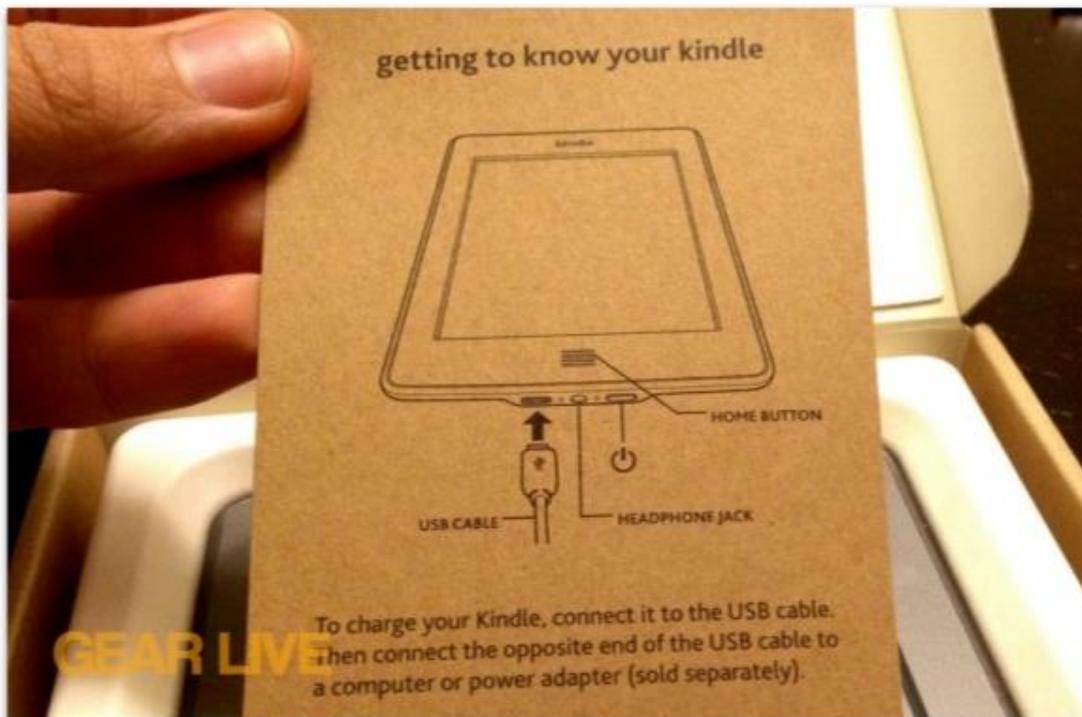
10. Help and documentation

The Kindle comes with an instruction card tucked inside the box flap, instead of a long boring manual
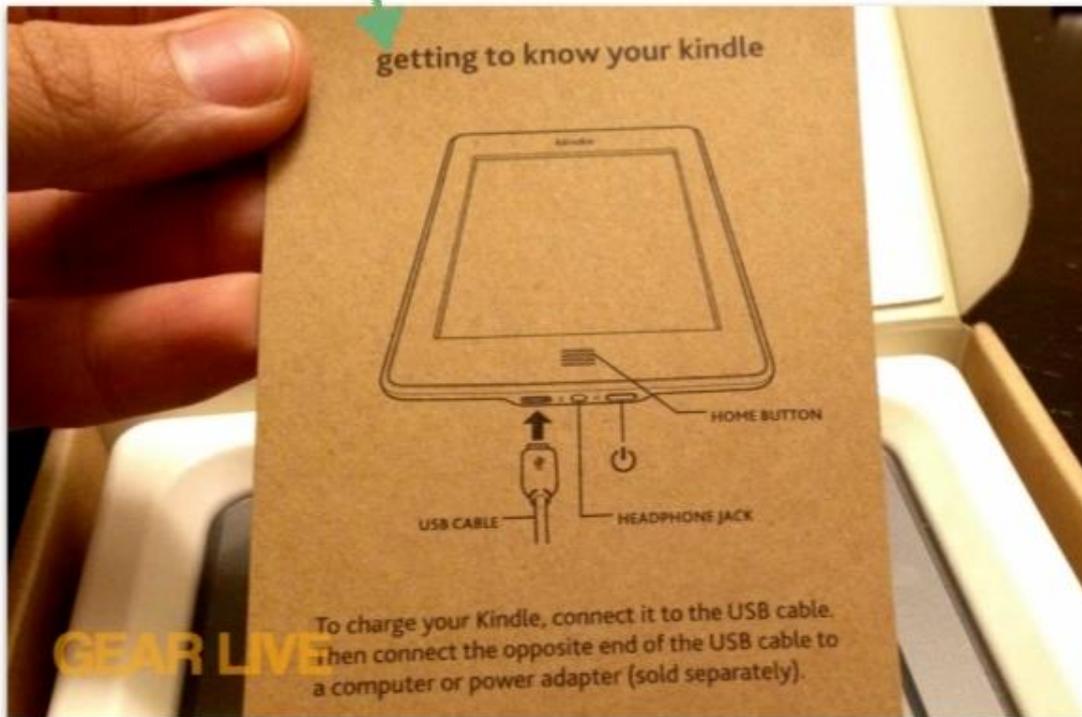
Contextual help on AirBnB provides explanations where they are needed most frequently

Entire Place
Listings where you have the whole place to yourself.

Private Room
Listings where you have your own room but share some common spaces.

Shared Room
Listings where you'll share your room or your room may be a common space.
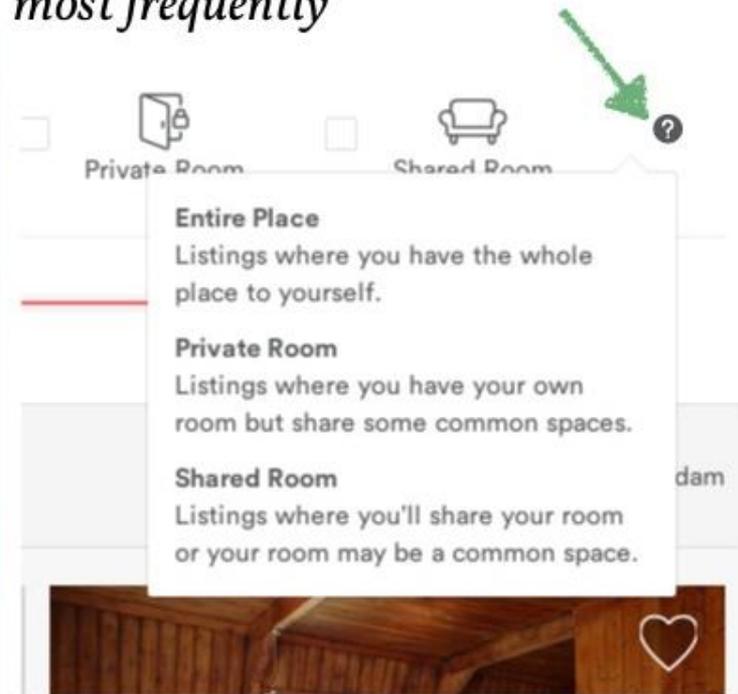
10. Help and documentation

🚫 *If only diapers came with an easy tutorial!*

Thank you