Design for Everyone

Session 806

Caroline Cranfill, Designer
Alexander James O’Connell, Designer
Design for Everyone
Design for Everyone
Design for Others
...who are you excluding?
1 Billion
Active Apple devices
People have a disability worldwide
1 in 7
Accessible

|əkˈsesəb(ə)l|
adjective, Easily obtained

Easily obtained
Easily used
Easily understood
Design for Everyone
Simplicity
Simplicity

Perceivability
Integrity
Simplicity
Perceivability
Integrity
1 in 6

Children have a developmental disability in the US

http://www.cdc.gov/ncbddd/autism/data.html
Which of these is "the boy"?

- el pan
- el niño
- el agua
- la manzana

Check
Easy to navigate
Quick to get started
Consistent behavior
Apple UI Design Resources

The Apple UI Design Resources include Photoshop and Sketch templates, macOS and plug-ins, and other UI materials for quickly designing iOS apps.

iOS Apps

The Apple UI Design Resources include Photoshop and Sketch templates, and other UI materials for quickly designing iOS apps. The included resources are comprehensive and accurately depict the full range of UIKit controls, views, and glyphs available to developers using the iOS SDK. They make it easier to understand how iOS apps are constructed and how to design apps that match the iOS design language. Included icon and glyph production files have been preconfigured to automate asset production using Sketch slices or Adobe Generator for Photoshop CC.

Video Tutorials

Learn more about what’s included in the Apple UI Design Resources and how to use them.
If you learn one app, you have a serious head start on learning another.
Outside UIKit?
Simplicity
Easy to navigate
Quick to get started
Consistent behavior

Perceivability

Integrity
Easy to navigate
Quick to get started
Consistent behavior

• Simplicity

Perceivability

• Integrity
285 Million

People are low vision worldwide

Men have a form of colorblindness

360 Million

People in the world with disabling hearing loss

http://www.who.int/features/factfiles/deafness/en/
Maximize legibility
Sourdough No-Knead Bread

TIME  24 hours

Did someone gift you a bread starter? Look no further, this is the best recipe for the non-baker. A little bit of process here and there but most of the time is waiting in between steps. Grab a bowl and a spoon and let's get started! Be sure to feed your starter afterwards.

Ingredients
12 oz bread flour
4 oz whole wheat flour
1 1/2 tsp salt
1/4 cup sourdough starter
1 1/2 cups purified water

Preparation
In a large mixing bowl, combine the flour and salt. In a small mixing bowl, stir together the purified water with the sourdough starter, then pour the mixture into the bowl with the flour mixture. Mix until just combined. Cover the bowl with plastic wrap and a towel and leave it to rise overnight, about 10 to 24 hours.
Did someone gift you a bread starter? Look no further, this is the best recipe for the non-baker. A little bit of process here and there but most of the time is waiting in between steps. Grab a bowl and a spoon and let’s get started! Be sure to feed your starter afterwards.

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Above the placid ivory snow lies a sleepy mountain village, brimming with the promise of adventure. Join Alto and his friends as they... more
Ratings & Reviews

4.7 ** out of 5
7,867 Ratings

Truly Amazing Game 1d ago
CuriousFox25

This game is wonderful and highly enjoyable for the entire family! I love how easy it is to pick up and play wherever you are. If you need an infinite runner to play with the kids, this is the one to get. After a long day, the colorful visuals and cheery music always put me in a good mood.

Editors’ Choice

In this gorgeous twist on the infinite runner, you guide an agile snowboarder down a never ending mountain, pulling...
General

- Invert colors
- Use grayscale
- Differentiate without color
- Reduce motion
- Increase contrast
- Reduce transparency

Vision

VoiceOver

Zoom

Display

- Display contrast:
  - Normal
  - Maximum
- Cursor size:
  - Normal
  - Large
- Shake mouse pointer to locate
  - Quickly move the mouse pointer back and forth to make it bigger.

Speech

Media

Descriptions

Captions

Show Accessibility status in menu bar

Open Display Preferences...
General

Vision
VoiceOver
Zoom
Display
Speech
Media
Descriptions
Captions

- Invert colors
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- Reduce motion
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Display contrast:

Cursor size:

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  Quickly move the mouse pointer back and forth to make it bigger.

Display resolution and brightness can be adjusted in Display preferences:

Open Display Preferences...
Invert colors
Use grayscale
Differentiate without color

Display contrast:
- Normal
- Maximum

Cursor size:
- Normal
- Large

Shake mouse pointer to locate
Quickly move the mouse pointer back and forth to make it bigger.

Display resolution and brightness can be adjusted in Display preferences:
Open Display Preferences...
Dynamic Type
Katie Abeles
To: John Appleseed

Trip to San Francisco
Today at 10:02 AM

John,

Visiting you in San Francisco was so much fun. We definitely need to head back soon. Here are some pictures from our trip:
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Settings

- Airplane Mode
- Wi-Fi
- Bluetooth
- Cellular
- Notifications
- Control Center
- Do Not Disturb
- General
- Display & Brightness
- Wallpaper
- Sounds & Haptics
Larger Text Principles

Make as much text dynamic as possible
Larger Text Principles

Make as much text dynamic as possible

Use as much of the screen width for text
Larger Text Principles

Make as much text dynamic as possible

Use as much of the screen width for text

Display the same amount of text as the default UI
Larger Text Principles

Make as much text dynamic as possible
Use as much of the screen width for text
Display the same amount of text as the default UI
Scale necessary content glyphs
Katie Abeles
To: John Appleseed
Details
Trip to San Francisco
Design Team Staff Meeting
3:00 – 4:00 PM
Briefing Room

Executive Briefing
5:00 – 6:00 PM
Ballroom
Design Team Staff Meeting
3:00 – 4:00 PM
Briefing Room
Executive
Design Team Staff Meeting
3:00 – 4:00 PM
Briefing Room
Executive
Design Team Staff Meeting
3:00 – 4:00 PM
Briefing Room
Executive
Design Team Staff Meeting
3:00 - 4:00 PM
Briefing Room
Reply
Reply All
Forward
Print
Cancel
Glad you had
All
Missed

Ailish Kimber
phone
2/27/17

Christopher
Presentation Prep
Today at 9:45 AM
Captions
mix flour, baking powder and salt
Audible and speech input
Check out these coastal rocks in SF!

Katie and Allis walking out on a rock ledge b...
Start a workout with Zova

Which do you want?

Strength
Cardio
Stretching
Remind me to pick up my prescription when I get in the car
Tap to Edit

Here's your reminder for the next time you get in the car and connect to your iPhone:

- Pick up my prescription
- Getting in the car

Remove
Haptic feedback
Inbox

John Baily
Yosemite Trip
Hey John, We're getting excited for our trip to Yosemite this summer. The kids are going to have a blast!

Katie Abeles
Trip to San Francisco
John, Visiting you in San Francisco was so much fun. We definitely need to head back soon. Hope all is well with you.

Allen Buchinski
Pick up from airport?
Hi John! Hope all is well with you. I am coming home from London and was wondering if you are free.

Jane Daniels
Dinner
Hi Everyone, I'm so excited to see everyone at dinner tonight. Parking can be tough around there.

Mary Ellen Mason
Troy's Birthday
Hey Everyone, Thanks for joining us for Troy's birthday. It was a great night!
John Baily
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Inbox

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What can I help you with?
What can I help you with?
No! You always pay for us. Let me do something nice for a change.

If you insist. $28
No! You always pay for us. Let me do something nice for a change.

If you insist. $28
Simplicity
- Easy to navigate
- Quick to get started
- Consistent behavior

Perceivability
- Maximize legibility
- Audible cues
- Haptic feedback

Integrity
Alexander James O’Connell
Designer, Maps
Does it work for me?
Does it work for everyone?
Simplicity
- Easy to navigate
- Quick to get started
- Consistent behavior

Perceivability
- Maximize legibility
- Audible cues
- Haptic feedback

Integrity
Take responsibility
iOS 10
iOS 11
Wrap Content

**Westfield Valley Fair**
Shopping Center · 2.8 mi
★★★★★ (1,128) on Yelp · $$$
Westfield Valley Fair
Shopping Center · 2.8 mi
★★★★★ (1,128) on Yelp · $$$
Apple Union Square
Computers · 1.2 mi
⭐⭐⭐ (657) on Yelp · $$$

Directions
22 min walk

Photos from Yelp

Message  Call  Website  Favorite  Share

Hours
9 AM – 9 PM, Open Now

Messages
Usually responds within a minute

Address
300 Post St
San Francisco, CA 94110
Apple Union Square
Computers · 1.2 mi
🌟🌟🌟 (657) on Yelp · $$$

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22 min walk

Hours
9 AM – 9 PM, Open Now

Messages
Usually responds within a minute

Address
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San Francisco, CA 94110

Message Call Website Favorite Share
Stack Elements

- Messaggio
- Chiama
- Sito web
- Preferito
- Condividi
Apple Union Square

It was covered under Apple Care and ...  Tiffany D. · 2 months ago

They are awesome. Very helpful, kind and caring staff. Turned the repair around in a couple of hours, when I thought it would take an entire day.  George D. · 2 months ago

Find out more on yelp+

Get the App

Apple Store

Create New Contact
Add to Existing Contact
Report an Issue
Create New Contact
Add to Existing Contact
Report an Issue
Scale Icons

- Create New Contact
- Add to Existing Contact
- Report an Issue
It’s challenging.
One of the few effective keys to the design problem: the ability of the designer to recognize as many of the constraints as possible, their willingness and enthusiasm for working within these constraints.

Charles Eames
Be empathetic
Lorem ipsum dolor sit amet

JOHNNY APPLESEED  JUNE 8TH 2017

Vestibulum non scelerisque augue, sit amet egestas mi. Integer tincidunt malesuada metus sit amet auctor. Aenean ut erat vitae dolor rhoncus ullamcorper.


Lorem ipsum dolor sit amet

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Vestibulum non scelerisque augue, sit amet egestas mi. Integer tincidunt malesuada metus sit amet auctor. Aenean ut erat vitae dolor rhoncus ullamcorper.

Pineapple
$3.99

Pineapple
$3.99
Pineapple $3.99
Tropical, spiky and sweet with a brilliant hair style.

Customer Reviews

Similar Products
Pineapple

$3.99

Tropical, spiky and sweet with a brilliant hair style.

Add to Cart

Customer Reviews

4 stars (28)
Pineapple
$3.99
Tropical, spiky and
Pineapple

$3.99

Tropical, spiky and sweet with a brilliant hair style.
Pineapple
$3.99
Add to Cart
Tropical, spiky and sweet with a
Pineapple
$3.99
Unlock potential
Die Grenzen meiner Sprache bedeuten die Grenzen meiner Welt.

Ludwig Wittgenstein
Die Grenzen meiner Sprache bedeuten die Grenzen meiner Welt

Ludwig Wittgenstein
The limits of my language mean the limits of my world

Ludwig Wittgenstein
Easy to navigate
Quick to get started
Consistent behavior

Integrity

Maximize legibility
Audible cues
Haptic feedback

Perceivability

Simplicity

Take responsibility
Be empathetic
Unlock potential

Unlock potential
Easy to navigate
Quick to get started
Consistent behavior

Maximize legibility
Audible cues
Haptic feedback

Take responsibility
Be empathetic
Unlock potential
Start now

- Darken Colors
- Increase contrast
- Captions
- Smart Invert Colors
- VoiceOver
- Reduce Transparency
- Haptics
- Siri integration
- Reduce Motion
- Dynamic Type
- Bold Text
- Image descriptions
- UI element sounds
- Button shapes
- High color contrast ratios
- Smart Invert Colors
- Bold Text
- Image descriptions
- UI element sounds
- Button shapes
- High color contrast ratios
Do it proudly
Design for Everyone
Design for Everyone
More Information

https://www.apple.com/accessibility/
More Information

https://developer.apple.com/wwdc17/806
## Related Sessions

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<td>Accessibility Design by Appointment Lab</td>
<td>User Interface Design Lab B</td>
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<tr>
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<td>User Interface Design Lab A</td>
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<tr>
<td>Accessibility Lab</td>
<td>User Interface Design Lab B</td>
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<td>Accessibility and Dynamic Type Lab</td>
<td>Technology Lab C</td>
<td>Fri 4:00PM-6:00PM</td>
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