
Apple's Design Philosophy and Principles

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Aim

We aim to explore the design principles Apple products incorporate currently and connect them to Don Norman's user-centered design principles.

Motivation

We have always been comparing smartphones and laptops based on many aspects like performance, aesthetics, pricing, etc.

We started off by comparing Apple as a mobile phone brand but soon realized that it has completely revolutionized the way product design itself is perceived, raising the expectations of users and other mobile phone brands trying to copy it.

Finally, we decided to solely focus on Apple product design as a whole.

Overview

In this project, we study the current Apple product design from the **perspective of both functionality and physical design.**

We connect it with Don Norman's principles of user-centered design by picking out design aspects and checking whether it conforms with his ideas or not.

We used Apple's human interface guidelines and Don Norman's critique of Apple design to drive our study.

Pillars of Apple design

- **Simplicity and minimalism:** Apple products try to incorporate intuitive and simple UI because complex designs tend to overwhelm users.
 - **Distinctive design:** Apple tries to make a successful combination of aesthetic design without compromising on functionality. As Steven Bradley says, "Human beings have an attractiveness bias; we perceive beautiful things as being better, regardless of whether they actually are better".
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Design Principles and definitions



Here we provide definitions of some of Don Norman's principles and a few others, which are considered important for the product design of modern devices.

Feedback

Feedback is the principle of making it clear to the user what action has been taken and what has been accomplished. This should be immediate and should be in such a way that it keeps the **user engaged** and without distracting the user from the current task.

Consistency

Consistency refers to having **similar operations** and **similar elements** for achieving **similar tasks**.

Mapping

A mapping is a **clear relationship** between **controls and the effect** they have on the world, which should be as **natural** as possible.

Recovery

Recovery essentially means that it should be as **easy or easier to undo than to do**. It should be easy to go back to the previous step in case of any error.

Discoverability / See and Point

Discoverability, in design, refers to users' ability to **find key information**, applications or services. Discoverability **allows users to locate** something they need in order to complete a certain task.

Modes

A mode is a distinct setting, in which the **same user input** will produce **results different from those that it would in other settings**. Devices are preferred to be **'mode-less'**, for ease of user experience and reducing complexity.

Now we go over each of these principles and find instances from Apple product design where they conform/don't conform to the same.

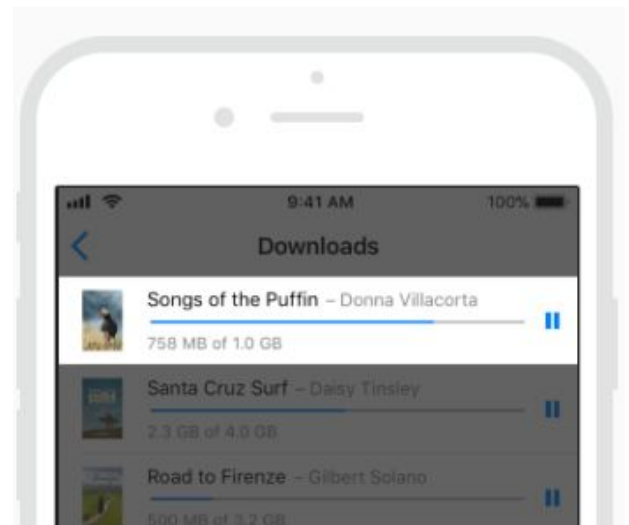
Feedback

Apple incorporates this in the design and some of the examples include:

Loading progress indicators

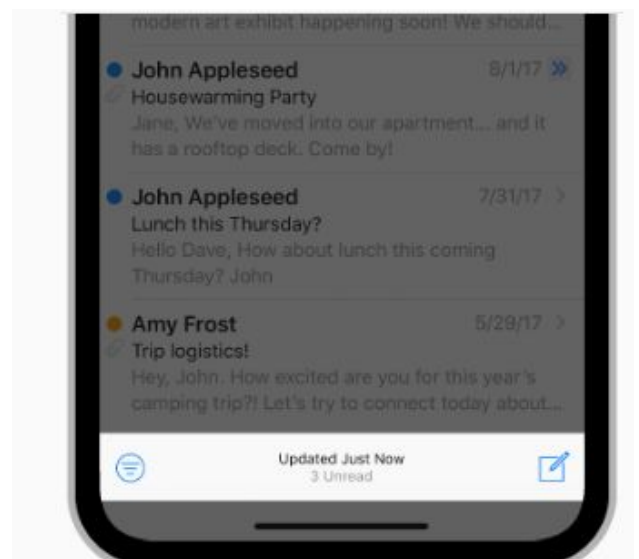
This is an example from the Downloads section of iTunes.

When content is loading, a blank or static screen can make it seem like your app is frozen potentially causing people to leave your app. Hence it is better to display explicit progress so users can gauge how long they'll be waiting. This is an example of user engagement too.



Feedback which doesn't disturb the user

Ideally, users should get important information/notifications without taking action or being interrupted with their current task. Apple Mail, for example, subtly displays status information in the toolbar while navigating through mailboxes of messages as shown in the picture. This information doesn't compete with the primary content onscreen and can be checked at any time with a quick glance.



Activity indicators

An activity indicator spins while an unquantifiable task such as loading is performed. It is important to keep the users engaged. People associate a stationary activity indicator with a stalled process, thus, keeping it spinning helps in engaging them.



Consistency

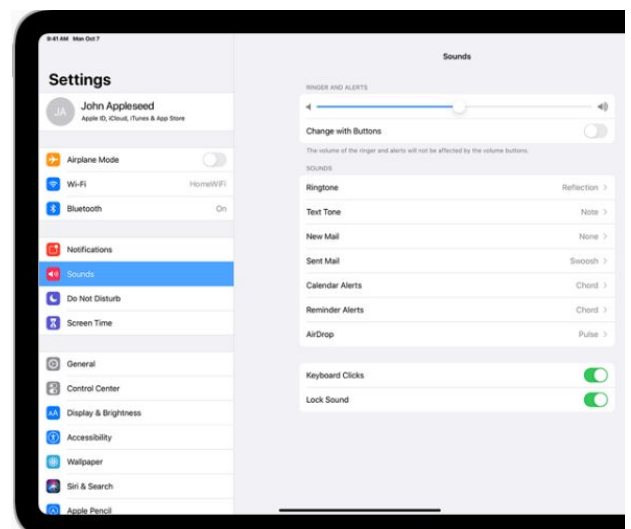
Apple incorporates this in the design and some of the examples include:

Typography

In order to maintain a consistent experience across devices and applications, Apple has a special font. San Francisco (SF) is the typeface that is consistent throughout the Apple products and applications. The font is optimized to give legibility, clarity, and consistency.

Tables

Apple is consistent with the design of tables and it provides three styles of tables: plain, grouped, and inset grouped. Depending on the use, a particular format can be selected.







Signifiers and Mappings

Apple incorporates this in the design and some of the examples include:

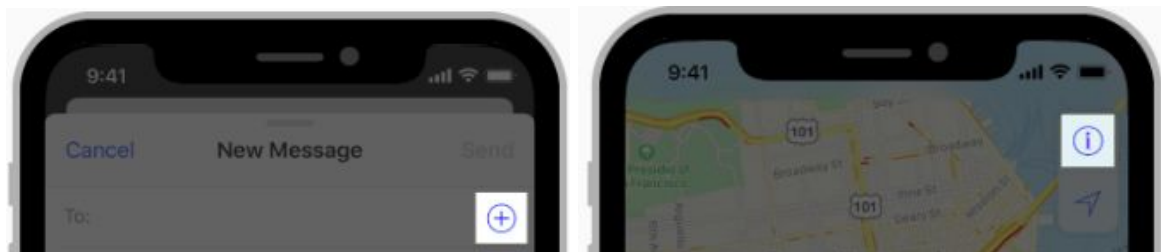
Icons and symbols

This is an example from the Navigation and toolbar icons section of the Apple human interface guidelines.

Notice how developers are promoted to use standard, easy to understand icons for better user understanding.

Icon	Name	Meaning
	Action (Share)	Shows a modal view containing share extensions, action extensions, and tasks, such as Copy, Favorite, or Find, that are useful in the current context.
	Add	Creates a new item.
	Bookmarks	Shows app-specific bookmarks.
	Camera	Takes a photo or video, or shows the Photo Library.

These signifiers conform with natural mappings that users are acquainted with for ease of usage.

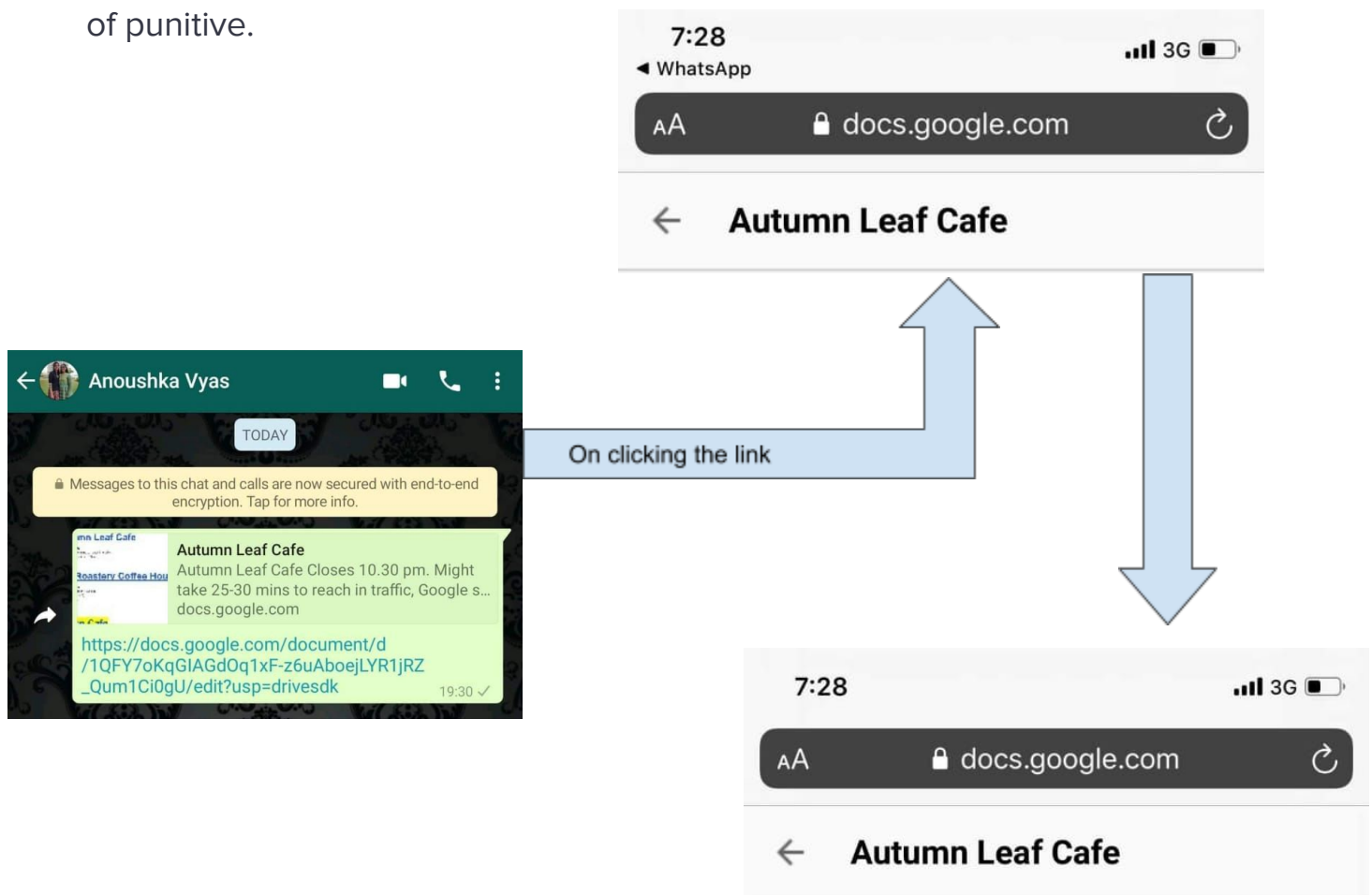


In the above example from Messages and Maps, a “+” symbol naturally indicates some “addition” that can be performed by it (making a new message) and an “i” stands for information/help.

Recovery

Apple fails to incorporate this in the design and some of the examples include:

The latest iOS provides no generalized tool to go back, for example, if you accidentally fire off a link from inside WhatsApp that takes you to Safari then there is a back button on the top left to go back to WhatsApp but the back button disappears if you change tab or go to some other app. Back and Forward should be standard buttons in iOS so that the interface is forgiving of accidental navigation, instead of punitive.



Discoverability

Apple has failed to incorporate this in the design everywhere:

In its aim to achieve minimalism, Apple products deliberately hide complexity by obscuring or even removing important controls reducing discoverability of functions.

A one-button controller is very simple, but because it has only a single button, its power is very limited unless the system has modes. Modes require control to take on different meanings at different times, leading to confusion and errors.



Users can swipe from the right, left, top, and down, the center; with one, two, or more fingers. Also, the same swiping motion with the same number of fingers gives different results at different places.

This requires users to memorize unintuitive actions for many standard functions.

Conclusion

- Apple still is one of the best companies in terms of design, and it conforms to most of Don Norman's principles.
- The products are user-friendly and have an aesthetic appeal, though there have been attempts to introduce/explore new designs that haven't appealed to everyone's palate.

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- Apple has created a niche for itself but only in the ‘luxury products’ segment, regular users find it difficult to afford, some features are too advanced for the regular user.
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References

- <https://mediakix.com/blog/apple-statistics/>
 - <https://www.fastcompany.com/3053406/how-apple-is-giving-design-a-bad-name>
 - <https://developer.apple.com/design/human-interface-guidelines/>
 - <https://www.smithsonianmag.com/arts-culture/how-steve-jobs-love-of-simplicity-fueled-a-design-revolution-23868877/>
 - <https://www.technologyreview.com/s/407782/the-secret-of-apple-design/>
 - <https://medium.com/swlh/how-apple-died-with-steve-jobs-7f182301aca2>
 - <https://www.technologyreview.com/s/407782/the-secret-of-apple-design/>
 - <https://www.smithsonianmag.com/arts-culture/how-steve-jobs-love-of-simplicity-fueled-a-design-revolution-23868877/>
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