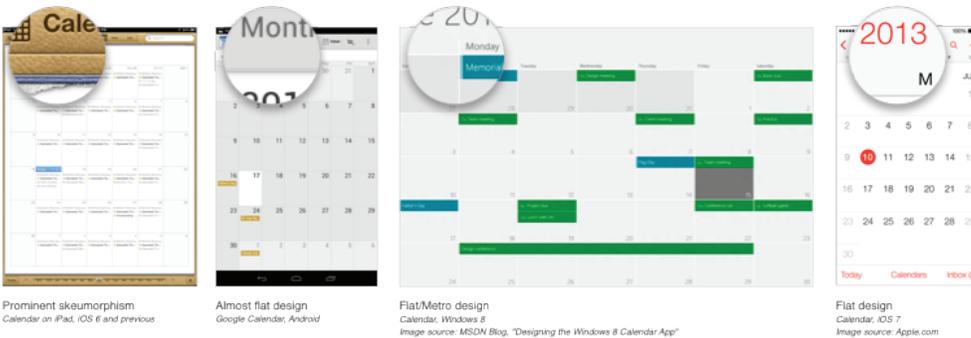


Skeuomorphism Versus Flat Design: A Closer Look



Skeuomorphism was widely adopted after Apple introduced its first iPhone in 2007. Now, almost six years later, Apple has flipped the switch on its design style. The recent unveiling of iOS 7 at Apple's World Wide Developer Conference revealed a simple and clean interface – otherwise known as flat design – most recently popularized by Microsoft as “metro” design with the release of Windows 8 and its Surface tablet. Since it can be difficult to know whether or not to adopt new design trends early, this paper will define both design styles, take a closer look at the pros and cons of each and highlight considerations for implementing a new style.

Skeuomorphism

In the digital context, skeuomorphism is the use of decorative embellishments on an interface to make it resemble a real-life object – usually its physical counterpart. For example, an address book application might use stitching, leather and paper textures to resemble the little black book our parents used to own.

Functionally, the ornamental details serve little purpose. In the physical world, the stitching in an address book held the pages together, the leather added grip and the paper determined how easily the pen would slide across the page or absorb ink.

However, from a cognitive standpoint, a skeuomorphic design may help communicate the purpose of the application to the user and suggest interactive behaviours.

Skeuomorphism helps introduce a familiar mental model to a new application. Multiple screens made to look like pages in a book implies the user may start "flipping" through the screen as they would a real book. A raised link made to look like a button suggests that it can be pressed. This describes affordance, or perceived affordance in the digital world: the quality of an object which suggests to the user the interactions they may have with it.

In recent years, this technique has been criticized for being overused, tacky and dated. As the populace becomes more comfortable with the new medium, the need for a visual metaphor becomes less important. Furthermore, it is incredibly easy to disguise poorly planned interactions behind visual noise.

Flat/Metro Design

The philosophy of flat or metro design is to focus on the content, relying on typography and scale to communicate function. It removes extraneous effects like drop shadows, gradients and textures that dominate current user interfaces.

Guiding design principles introduced in iOS 7:

- **Deference.** The UI helps users understand and interact with the content, but never competes with it.
- **Clarity.** Text is legible at every size, icons are precise and lucid, adornments are subtle and appropriate and a sharpened focus on functionality motivates the design.
- **Depth.** Visual layers and realistic motion heighten users' delight and understanding.

Native iOS 7 applications that illustrate these principles include:

- Video Player
- Control Panel
- Parallax Lock Screen
- Calendar
- Mail

In practice, this means:

- A strong emphasis on typography, using size and spacing to establish a visual hierarchy of information.
- Translucent and frosted overlays to allow underlying content to show through, thereby giving depth and context.
- Animations to delight and add vitality.
- Relying on colour and placement to show action states and content relationships.
- Stripping away borders, textures, drop shadows and other visual noise.
- Edge to edge content.
- Dynamic text sizes.

This new approach forces designers and business owners to prioritize content and eliminate visual clutter. However, similar to Windows 8, the biggest criticism of flat design is its reduced discoverability. It removes the perceived affordance of actionable items. There is no visual cue for what is interactive. Copy is treated similarly, but doesn't behave similarly.

To resolve some of these issues, Google took an "almost-flat" approach in designing the Android OS. Subtle depth was added with soft, tone-on-tone gradients and barely-raised drop shadows.

 This new approach forces designers and business owners to prioritize content and eliminate visual clutter. 

Things to Consider

Design can be very subjective. What appeals to some may be rejected by others. Regardless of personal taste, there are overriding principles that should be incorporated into a design to ensure it provides a strong user experience. Below are few considerations to take into account if you plan to embark on a redesign of your own solution.

There's nowhere to hide.

- More than ever before, we need to think carefully about the architecture of the application, the relationship of the content and how typography can support it.
- Language and nomenclature need to communicate purpose as well as action.
- Poor labelling can cause users to lose their information scent.

Make sure you have a strong and consistent visual language.

- Without 3D effects to add dimension, designers must come up with other ways to communicate affordance such as colour, shape and location. Remember, people use a combination of skimming and reading to wayfind.
- Fundamental design principles like size, spacing and contrast are ways to establish hierarchy.
- When and how are images used? Are they content or decorative?

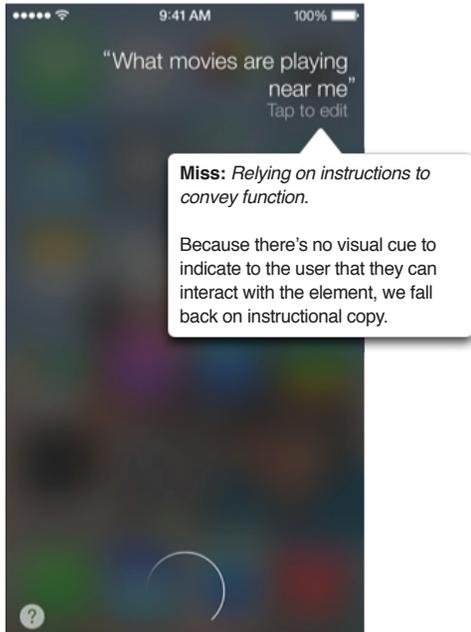
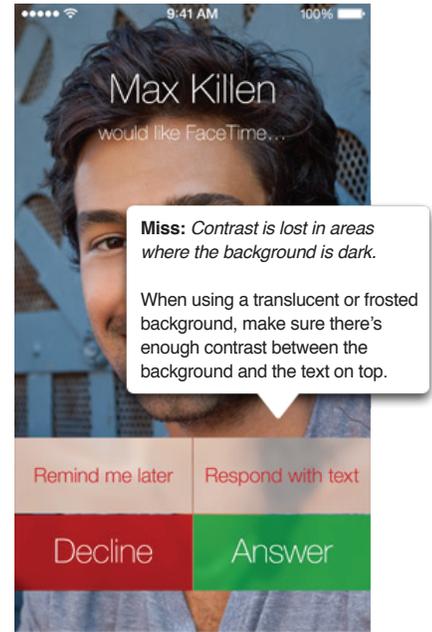
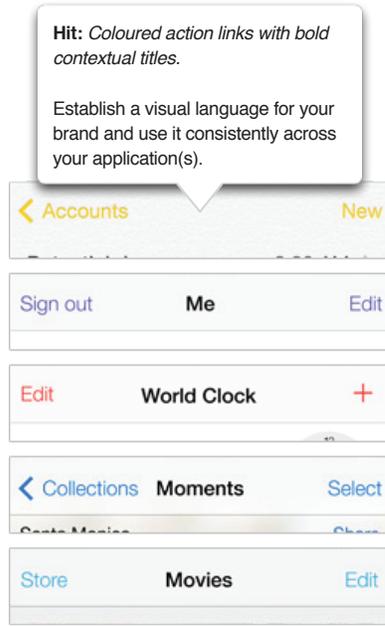
Accessibility.

- **Perceivable:** can the information be experienced in different ways?
 - Don't rely solely on animations and translucency to show depth. Use meaningful headings when the context changes.
 - Don't rely solely on colour to distinguish information.
 - When using overlays, make sure the background provides enough contrast.
 - Increased focus on content is a good step, but don't forget to provide an accessible alternative to rich multimedia.
- **Operable:** how usable is the application given hearing, sight, cognitive or dexterity limitations?
 - Don't use animations that are known to cause seizures; make sure no content, decorative or otherwise, flashes more than three times in any one-second period.
 - Even if the button is perceived to be borderless, make sure that it's implemented in such a way that the target area has a tolerance threshold around the label.
- **Understandable:** do users know what to expect?
 - Give careful consideration to copy.
 - Be predictable and consistent.
 - When using adaptive text and responsive web, make sure the order of the content still makes sense on a resized screen.

What is best for your audience and your product? Most of the time, the user interface is independent of the content (e.g. tools, utilities). Treat the UI as a way to navigate from one piece of information to another. When the interface is *part of* the content (e.g. games or immersive experiences), flat design would be a misstep.



Hits and Misses of Flat Design: An Analysis



Conclusion

If you're contemplating implementing flat design, consider the "almost flat" approach used by Google for its Android operating system as a happy medium. "Almost flat" design allows you to stay on trend and avoid looking dated, without sacrificing usability.

Skeuomorphism taught us the danger of taking design too far - adding bells and whistles that distract from the content. Be careful not to make that mistake with flat design. When everything looks like content, a user may not be able to find the interface when they need it most.

Additional Resources

Flat Versus Rich Usability Design

<http://www.effectiveui.com/blog/2013/03/29/flat-versus-rich-usability-design/>

Don't Blame Flat UI for your Design Problems

<https://medium.com/design-ux/3a69c61a8dd2>

Web Content Accessibility Guidelines 2.0

<http://www.w3.org/TR/WCAG20/>

Shared Web Experiences: Barriers Common to Mobile Device Users & People with Disabilities

<http://www.w3.org/WAI/mobile/experiences>

Let a Button be a Button

<http://mrgan.tumblr.com/post/50108095253/let-a-button-be-a-button>

Mobile Web Best Practices 1.0

<http://www.w3.org/TR/mobile-bp/>

Windows 8 – Disappointing Usability for Both Novice and Power Users

<http://www.nngroup.com/articles/windows-8-disappointing-usability/>



About the Author

Veronica Wong

Usability Specialist, Information Architect and Software Engineer, Veronica has a proven history of delivering design interfaces that are delightful, friendly and user-centered. She is a proven leader in providing innovative, creative solutions throughout the design and development process from delivering use cases, storyboards, information architecture and site maps to designing wireframes, prototypes, websites and applications. Veronica has provided design, site audits and recommendations for a wide range of brands and industries.

About Intelliware Development Inc.

Intelliware is a custom software, mobile solutions and product development company headquartered in Toronto, Canada. Intelliware is a leader in Agile software development practices which ensure the delivery of timely, high quality solutions for clients. Intelliware is engaged as a technical partner by a wide range of national and global organizations in sectors that span Financial Services, Healthcare, ICT, Retail, Manufacturing and Government.

Intelliware placed among the Top 5 Mobile Technologies Companies in the 2012 Branham300 report, the definitive listing of Canada's Information and Communication Technology (ICT) industry leaders, as ranked by revenue.

200 Adelaide Street West, Suite 100
Toronto, Ontario M5H 1W7 Canada

416.916.3457

in /company/intelliware-development-inc-

f /intelliware.inc

t /intelliware_inc

www.intelliware.com