

# Google Material Design

## Cognition & Usability

认知

易用

# 认知

- + 什么是 material?
- + 为什么要借用 material?



Making Material Design- Crafting Material

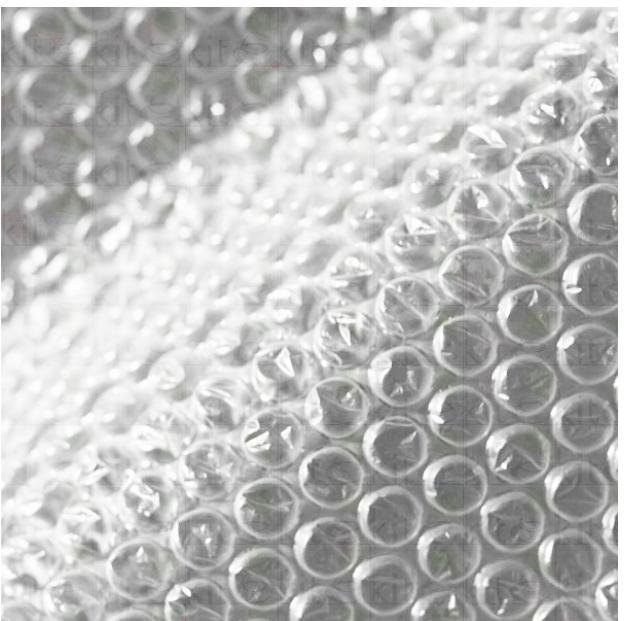
# 认知

因为人对现实世界的物体更熟悉更有直观的互动的概念和感觉，  
而对于数字媒体的交互元素还是比较陌生，容易产生疑惑和不解，  
使用和现实中人们经常接触的物体可以让人们更加快的理解新的数  
字媒体里的元素和作用

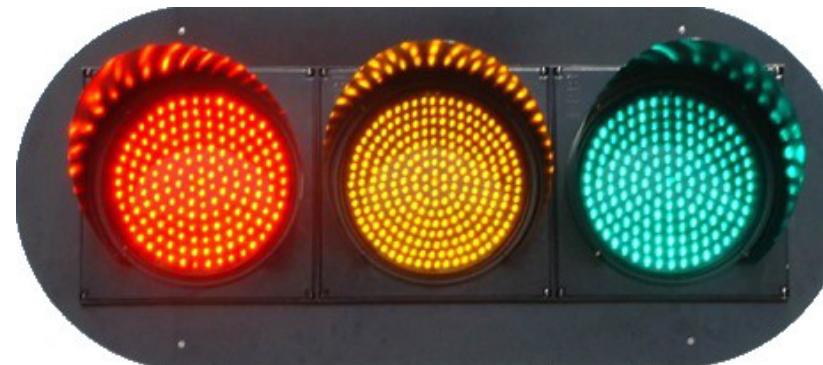
# 认知

## 基本交互认知

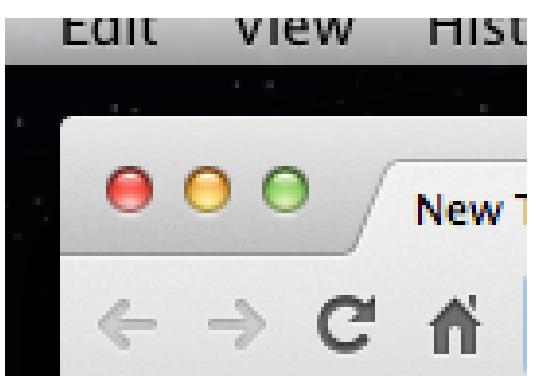
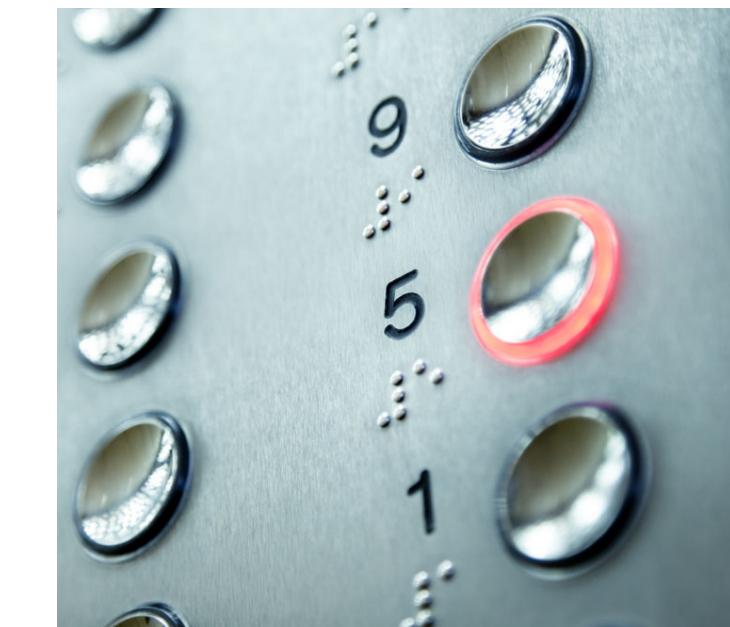
Affordance



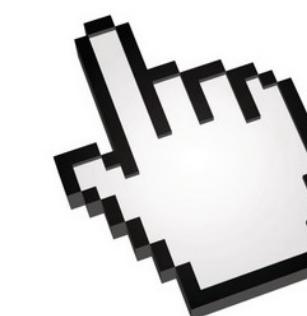
Convention



Feedback

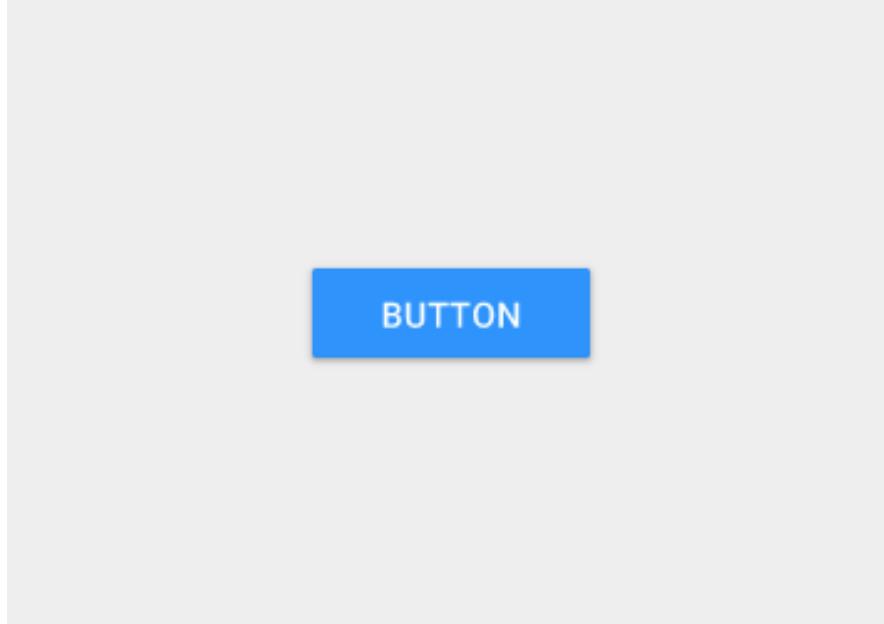


the Hyperlink is here

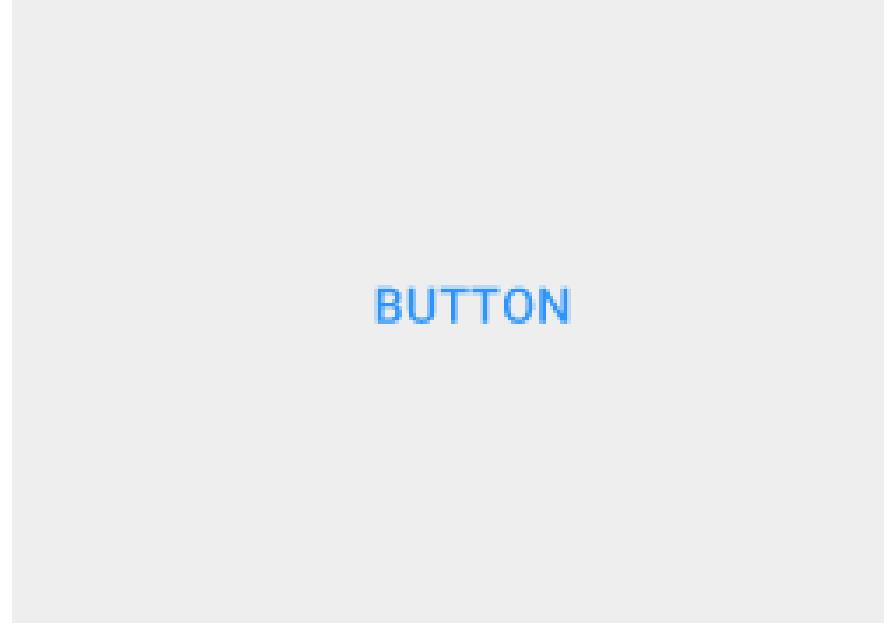


# 认知 in Material Design

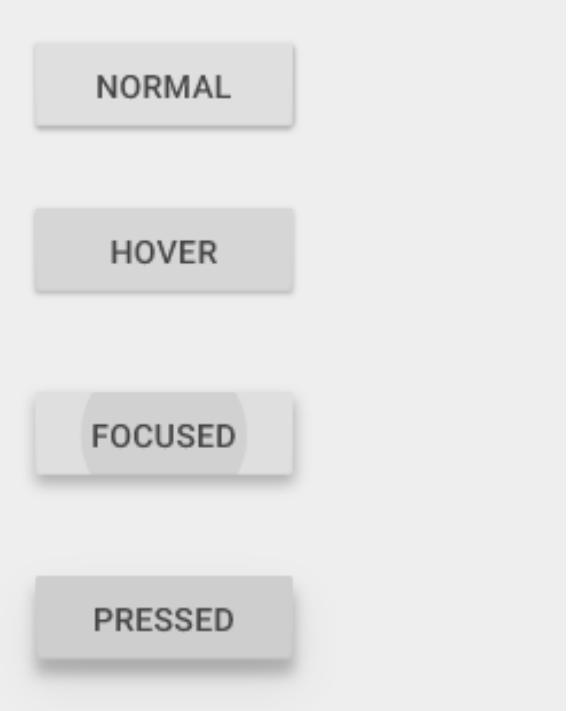
Affordence



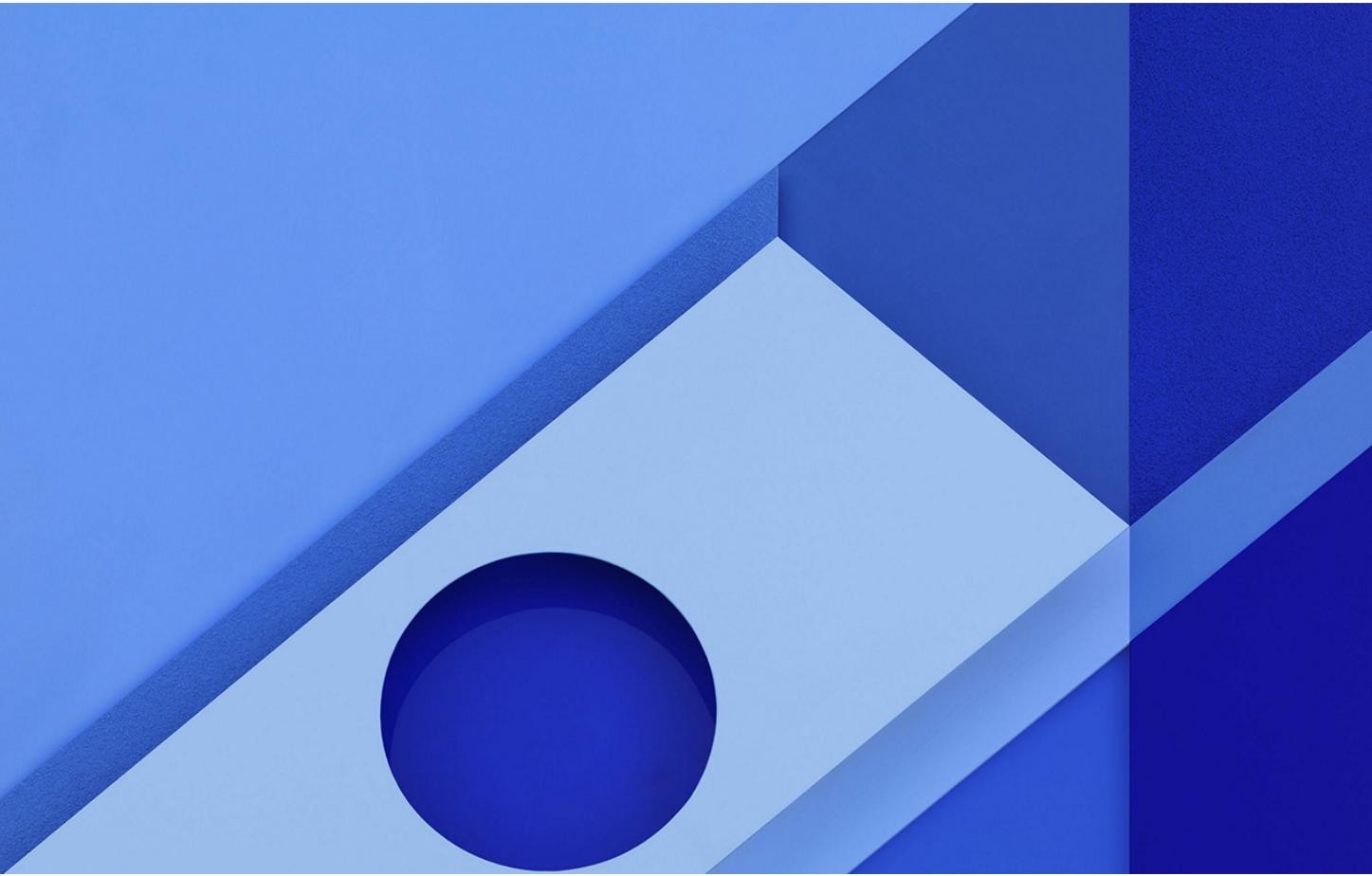
Convention



Feedback

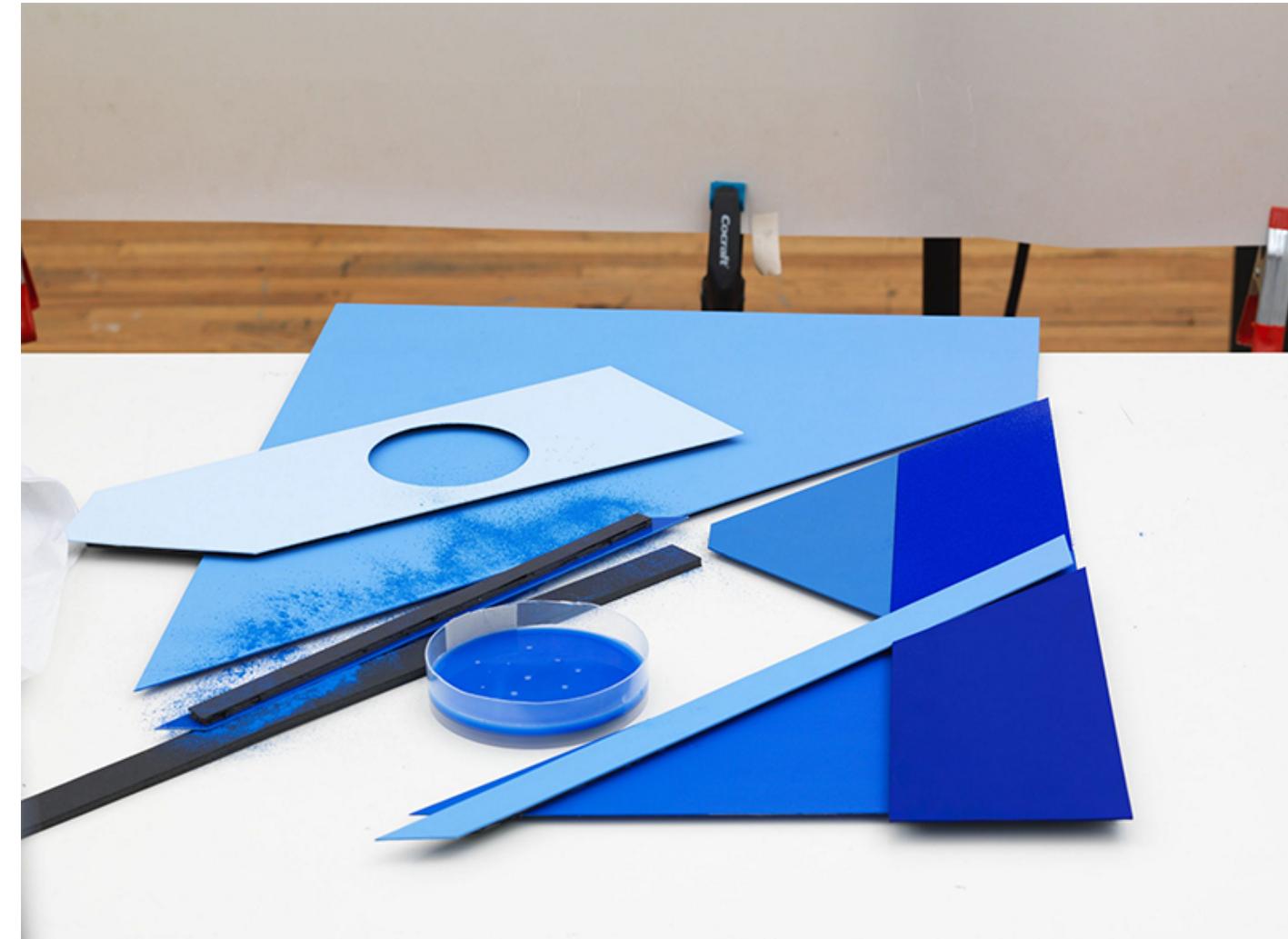


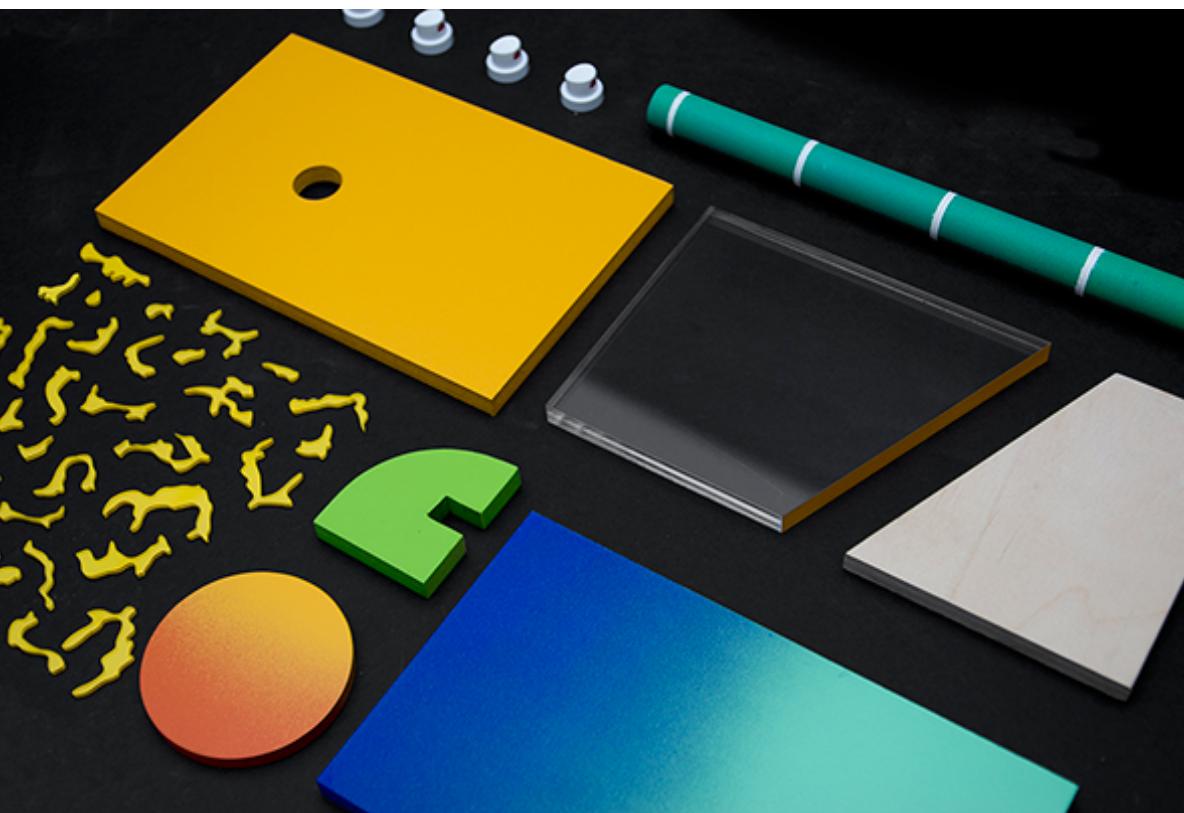
\* Apple 使用可 Skeuomorphism (拟物化设计) 来帮助人们更好的认识和理解这些数字化界面的元素



# Style

Remember the cover page?





为什么是这种**风格**？

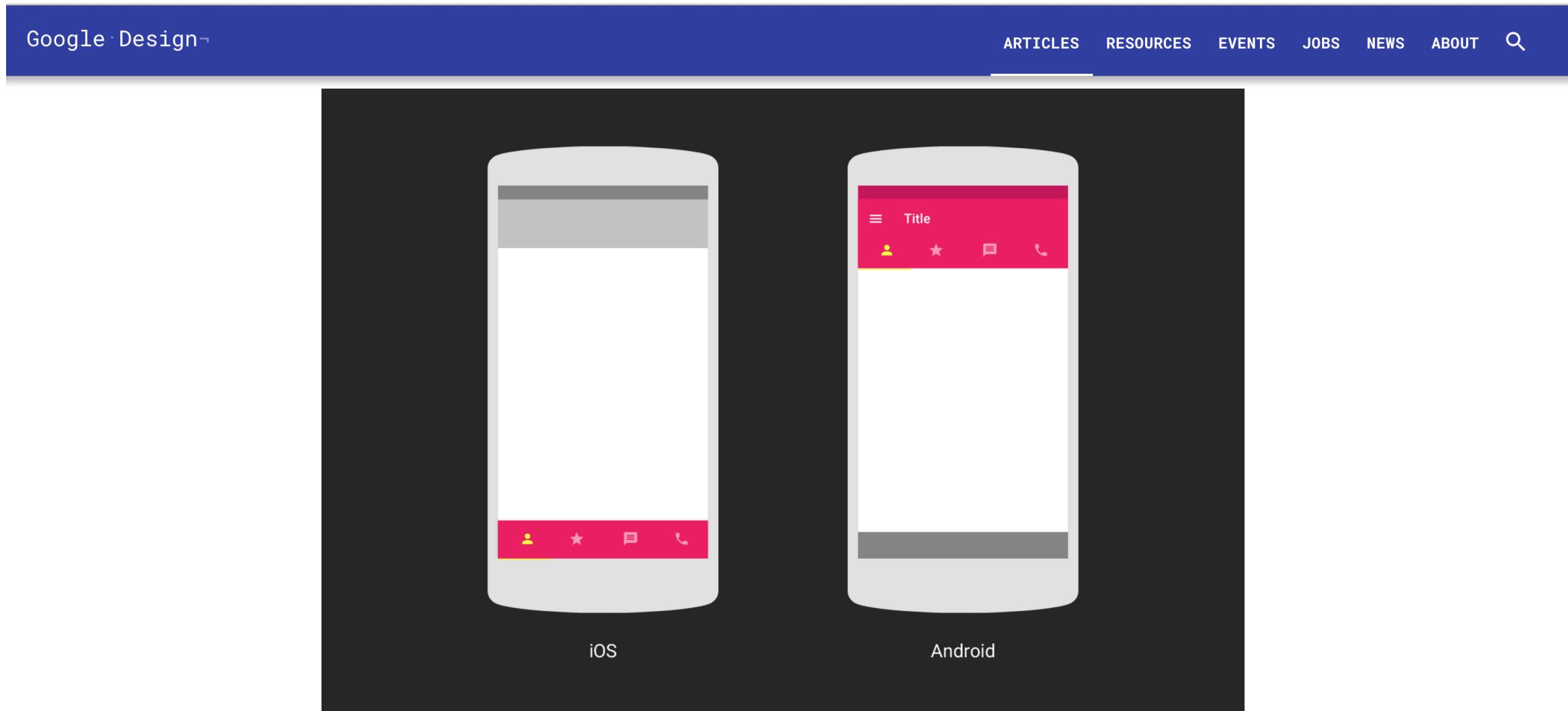
如果对 material design 风格感兴趣的可以去看一下以下两个艺术家的作品找找感觉 Haptic

# 易用

易用性是个很广泛的话题，今天主要来侧重看一点：

Navigation

# Google recommended design pattern for navigation



“On Android, avoid using bottom tab bars.”

On Android, avoid using bottom tab bars. It will help maintain a consistent experience with other apps on the platform and prevent confusion between actions and view-switching.

On iOS, bottom tabs are generally the top-level of the app information hierarchy, with navigation often occurring within those tabs. Thus, the tabs are often persistent across the app. On Android, if the navigation drawer is present, it should take precedence, with tabs as the second level of hierarchy. Navigating within a tab should take you to a new screen with an Up button. The tabs shouldn't remain on-screen.

## WeChat navigation bar

Before



Now



*This assumption comes from a study that mobile expert Steve Hoober conducted with 1,333 people early last year. He discovered that people held their phones in the following ways:*

**one handed: 49%**

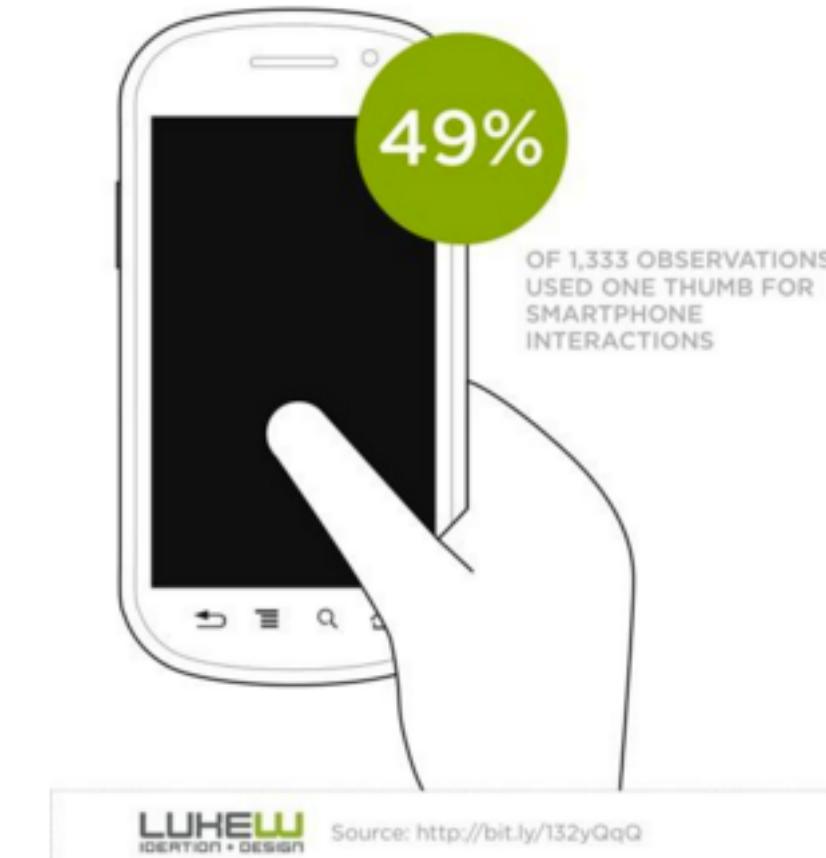
**cradled: 36%**

**two handed: 15%**

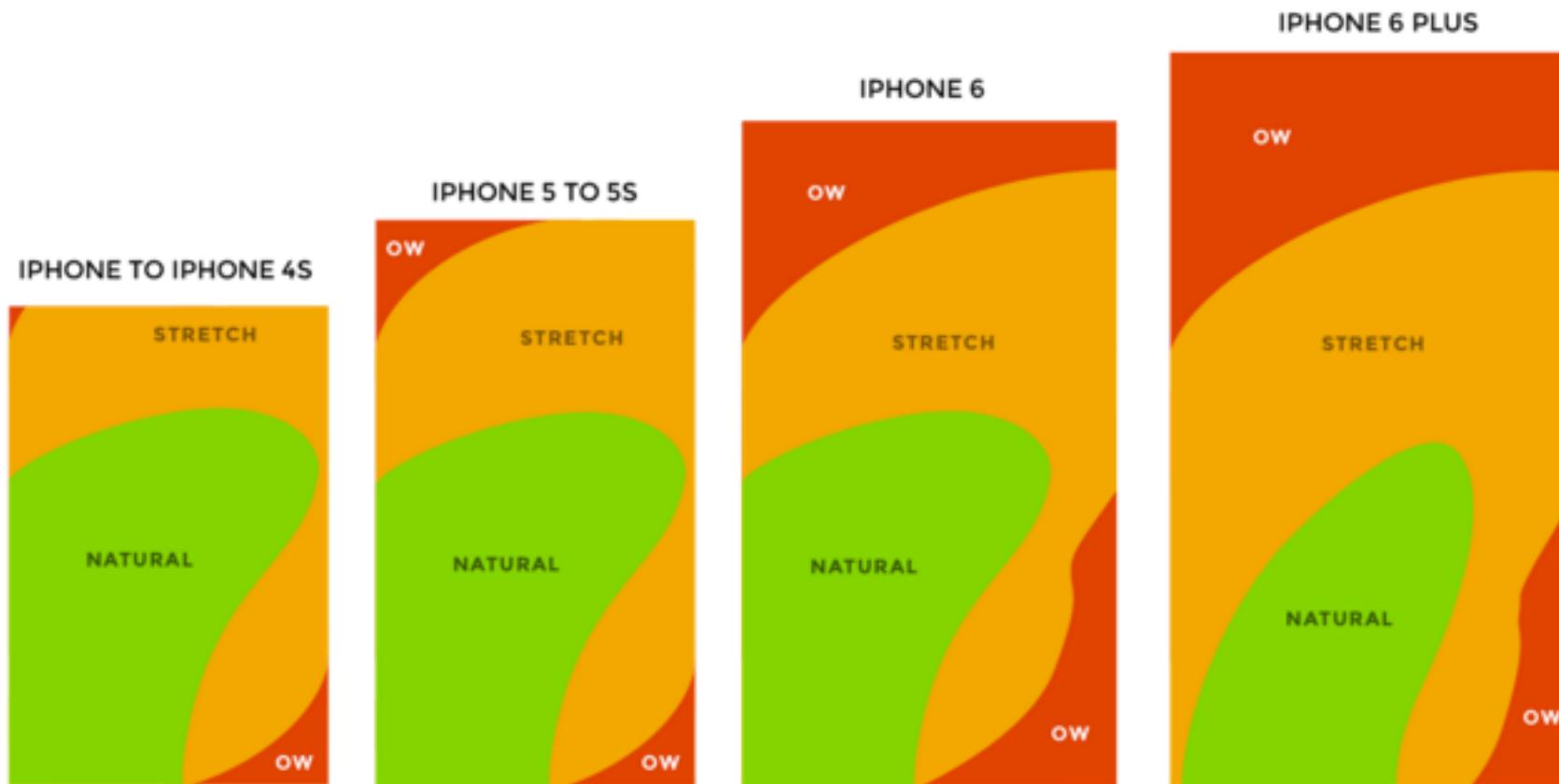
*Handedness figures were also instructive:*

**right thumb on the screen: 67%**

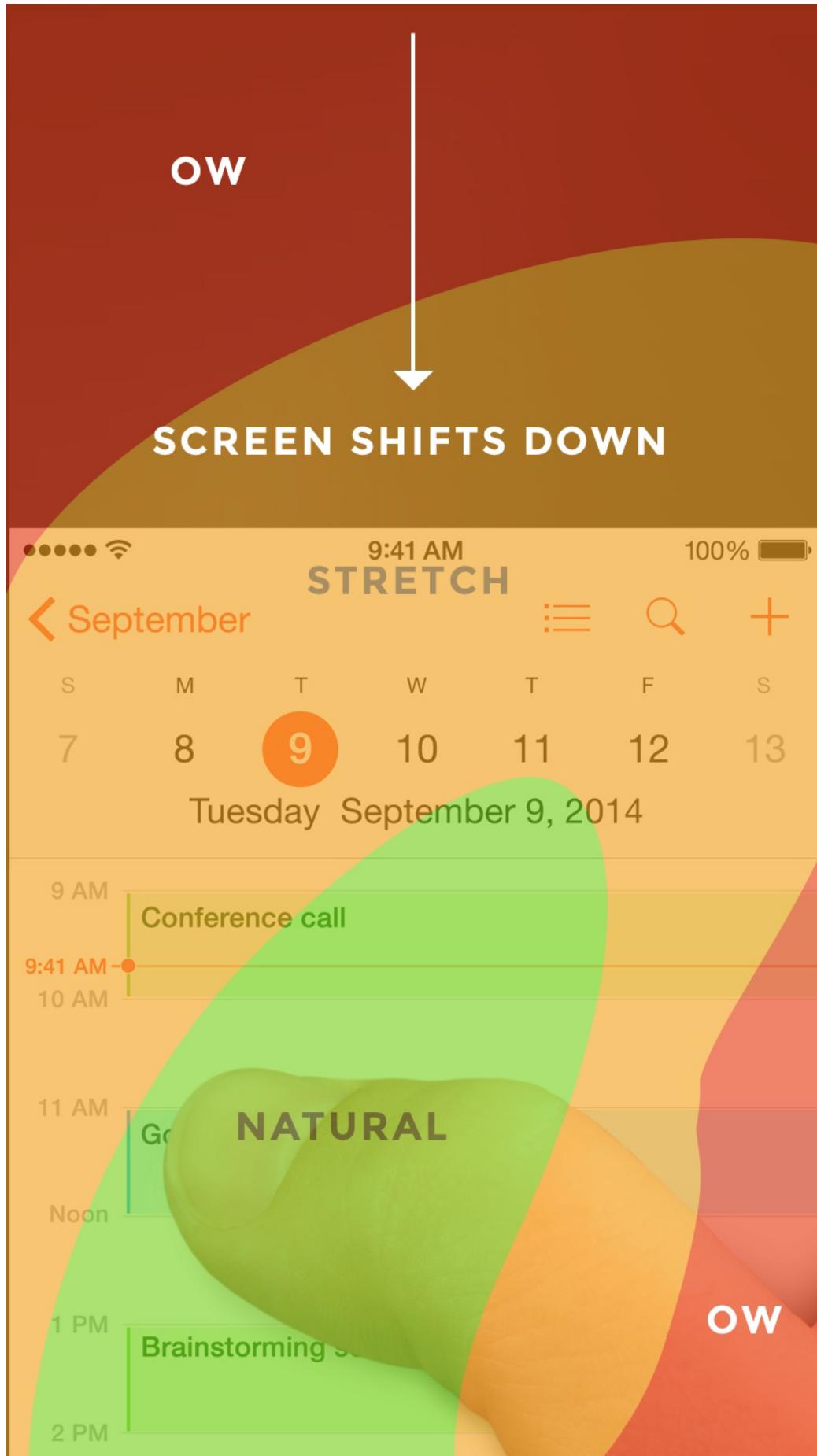
**left thumb on the screen: 33%**



Here's the Thumb Zone heat map applied to every iPhone display size since 2007:



# Home gesture button save the world



# Google recommended design pattern for navigation now

## - Bottom navigation

Google

Components – Bottom navigation

Material design

What is material?

Motion

Style

Layout

Components

Bottom navigation

Bottom sheets

Buttons

Buttons: Floating Action Button

Cards

Chips

Data tables

Dialogs

Dividers

Expansion panels

Grid lists

Lists

Lists: Controls

Menus

Pickers

Progress & activity

Selection controls

### Usage

Bottom navigation provides quick navigation between top-level views of an app. It is primarily designed for use on mobile.

Larger displays, like desktop, may achieve a similar effect by using side navigation. For instance, the compact “rail” treatment displays navigational icons by default.

The bottom navigation bar on mobile

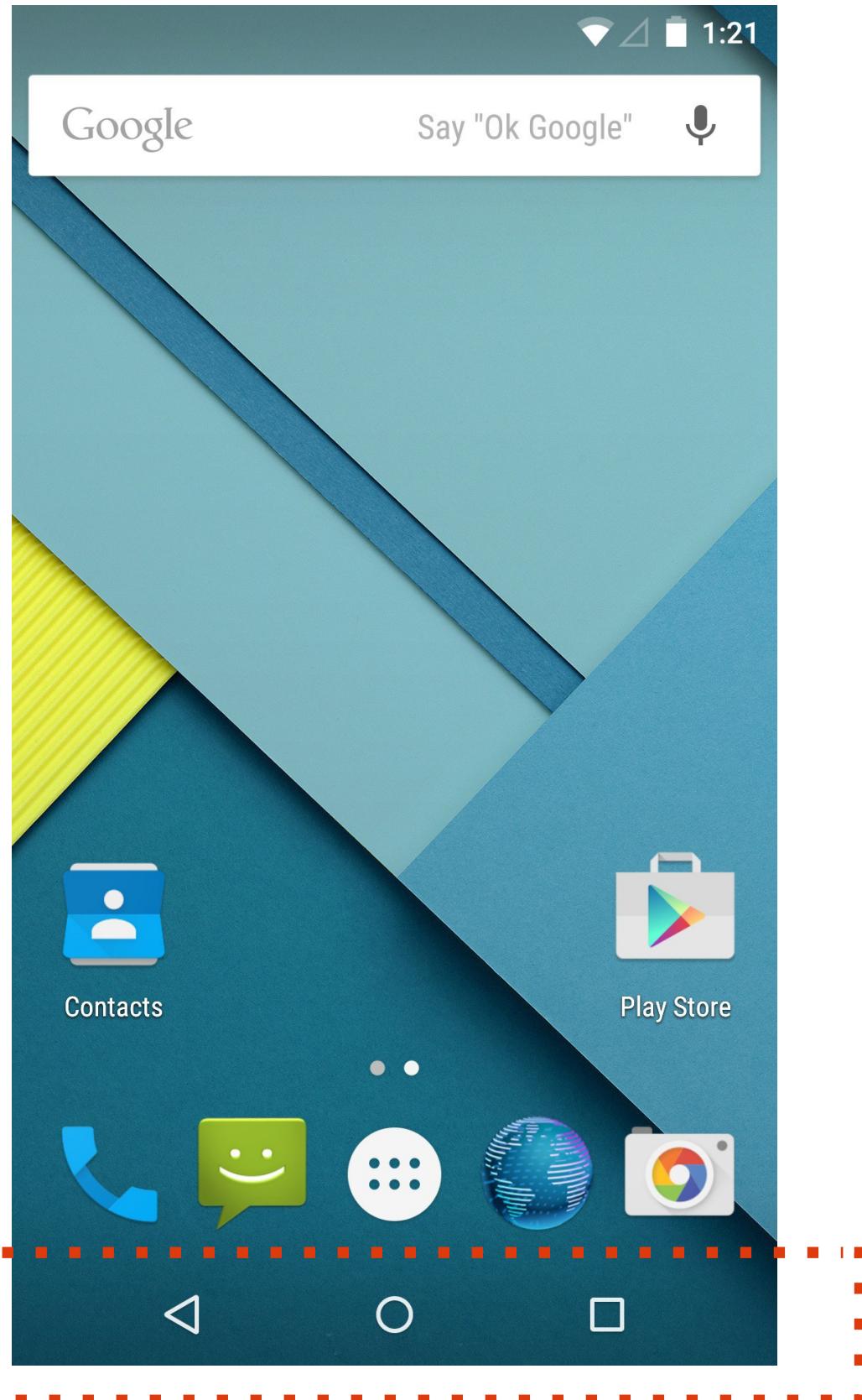
Favorites

Recents

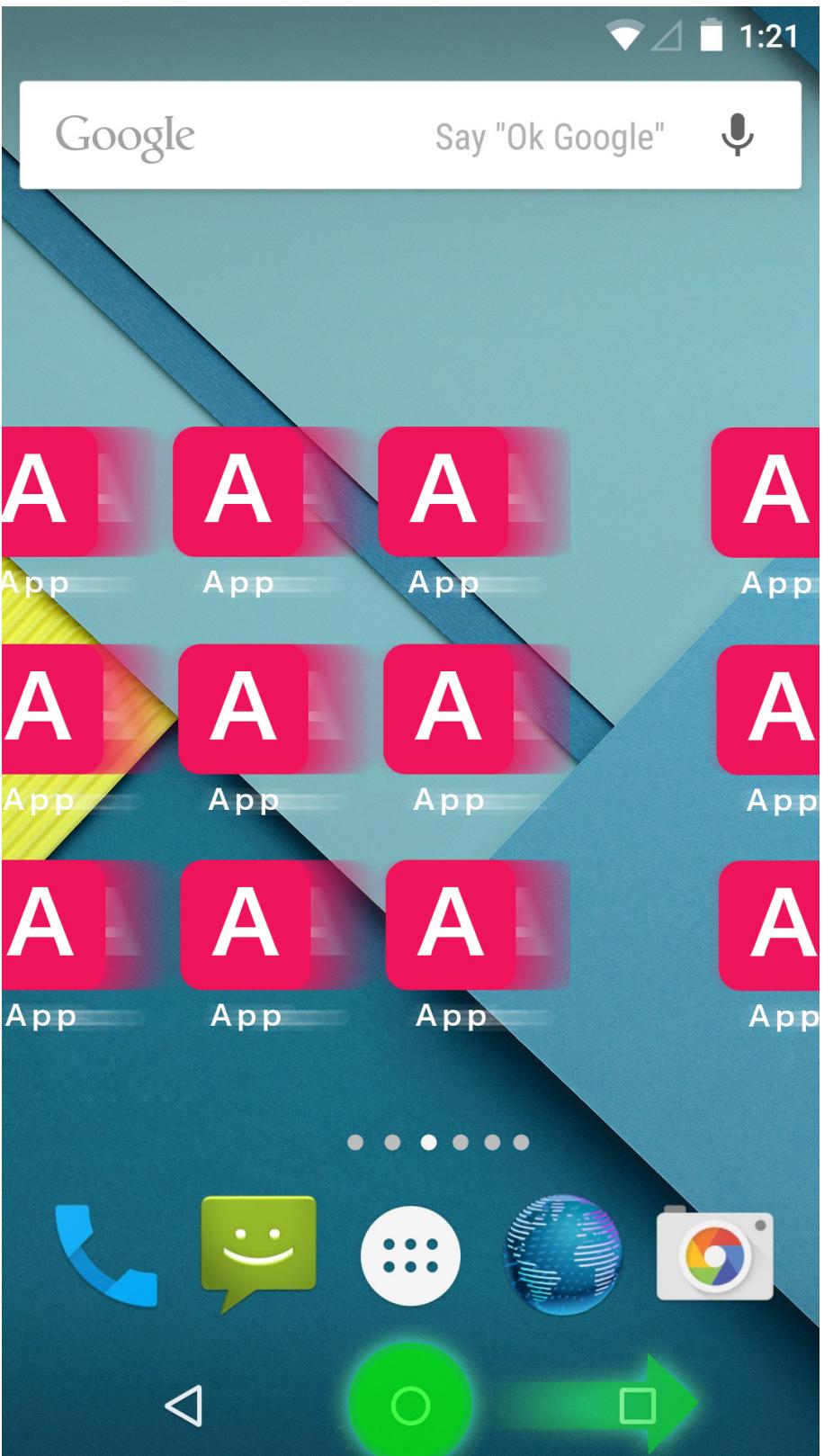
Favorites

Nearby

Left navigation on a larger display, such as tablet or desktop



**What about on Android?**



Potentials of Gestures



Tap-hold-slide to zoom in/out

# **Thank You!**