



# Android Design

## Android Designの活用ガイド

Android Design for Dummies

Nobuya Sato

Experience Designer

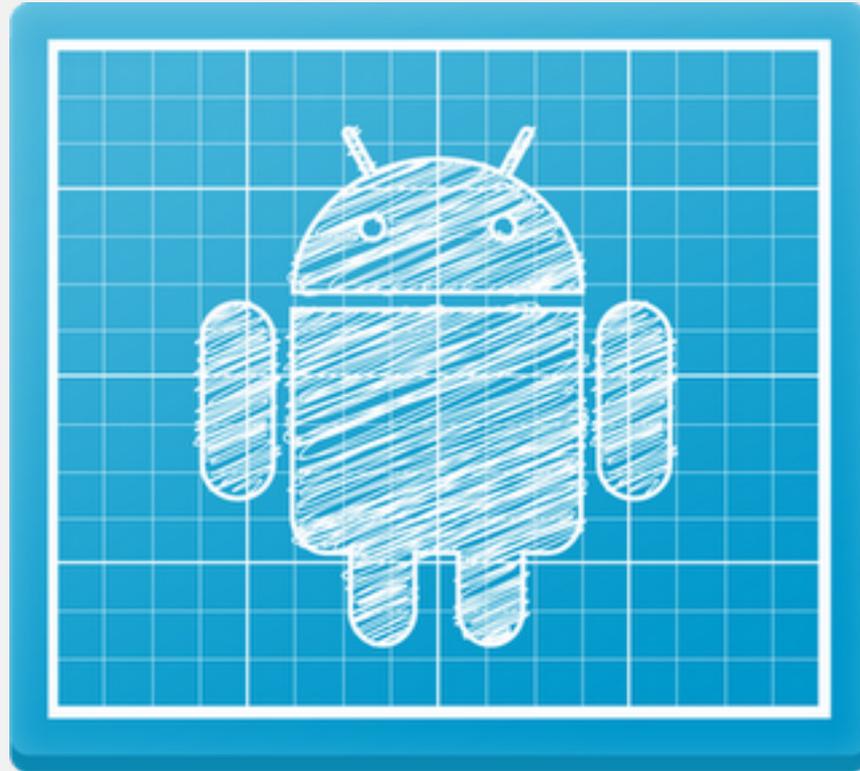
March 24<sup>th</sup>, 2012 – ABC 2012 Spring

Twitter: [#abc2012s](https://twitter.com/abc2012s)

# 自己紹介

- 佐藤伸哉 ([@nobsato](#))
- UXデザイン、情報アーキテクチャ、Webデザイン
- モバイルガジェット番長 (元?)
- Razorfish、bA、Sony Creative Center、Seesmic
- 3歳児の育児で毎日てんやわんや...

# Android Design



# 本日のセッションの内容

- デザインガイドライン／スタイルガイドについて
- Android Designの解説
- ..... (時間があれば、Jelly Beanとかの話)

# 質問

- あなたは開発者（デザイナー／エンジニア）それともそれ以外？
- 役職がUIデザイナーまたはUXデザイナーの方は？  
※Webデザイナーは含まず
- 今まで仕事でデザインガイドライン／スタイルガイドといった文書化された書類を使った事がある人？

# デザインガイド、よくある誤解

- Android DesignってGoogleのデザインガイドでしょ？
- オリジナルのデザインを作るので関係ない。
- すでにiPhoneアプリがあるから大丈夫。
- OSに関係なくデザインを揃えるので関係ない。
- 見た目はあまりこだわってないので...
- 絵心がないしデザイナーじゃないので...
- やんざむ本2があるので大丈夫！



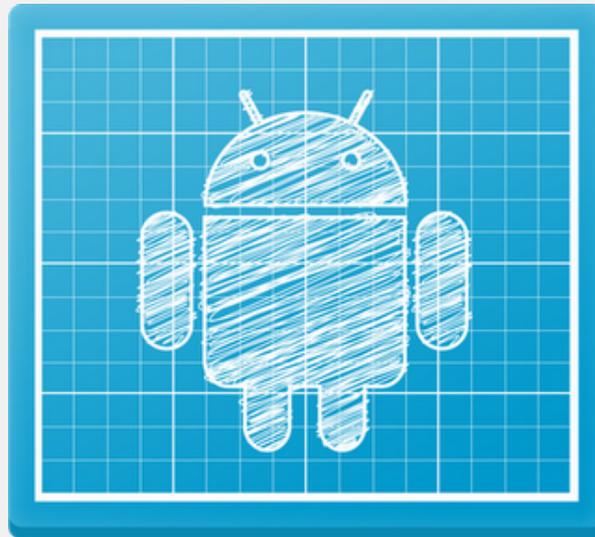
# 大前提

- デザイン (Design) って何？

**design**/dizáin/ = 設計する、立案する

→ 「設計」 = 「エンジニアリング」 (Engineering)

→ 「デザイン」 = 「**意匠** / **図案**」 (Visual Design)



# デザインガイドラインとは？

- プロダクトの質を高めるもの  
→ 「**守るべきルール**」だが「**厳格な決まり**」ではない
- 開発者（開発会社）が異なる場合
- 長期プロジェクトで人が入れ替わる場合
- OSプラットフォームや開発言語が異なる場合
- デバイスによる表示差異が発生する場合
- 多言語対応する場合  
...etc

# デザインガイドラインとは？

- 見た目だけ？
- デバイス毎のパフォーマンスによる差異を吸収するもの
- どこを削って、どこを残すかの均一化を図るもの
- 点や線ではなく面でプロダクトを展開できる
  - プロダクトのライフサイクルを伸ばす
  - プロダクトの展開を助成

プロダクトのブランドと持続性を確立しやすい

# 現場でのよく起こる誤解

- 「デザインのガイドラインがあると実装しづらい」
  - 本来の目的や内容が理解されていない
  - デザイナーが無能

本来、将来的な展開、あらゆる拡張性を踏まえた上でルールがデザインが作られるべき。

...それでもたまたま「**ルールが破綻する**」

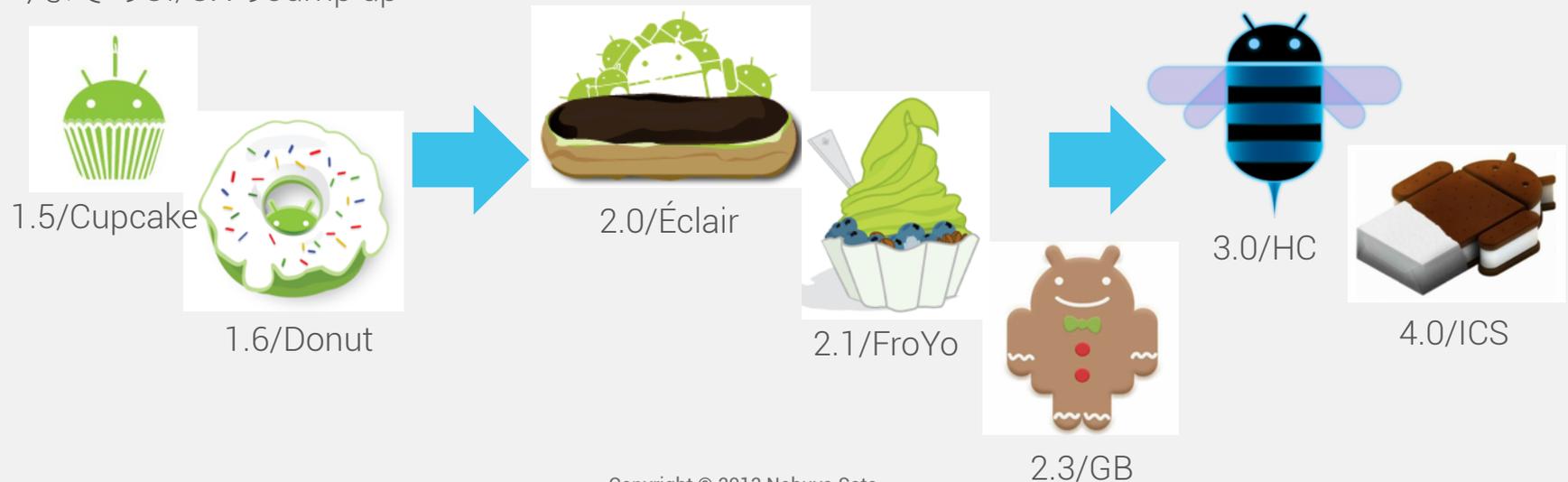
- 新たなルールの追加、ルールの改定

# デザインガイドラインは神なのか？

- 「**守るべきルール**」であって「**厳格な決まり**」ではない
- いくら新たなルールの追加やデザインの改定をしても「**デザインの破綻**」を吸収しきれない...

→ **デザインの刷新** (Jump up, Full scratch)

今までのUI/UXのJump up



# UI GuidelinesとUI Design Guidelines

UIガイドライン

→ UIの構築、実装ルール、設計ポリシー

UIデザインガイドライン

→ UIのパターン、視覚的ルール、世界観ポリシー



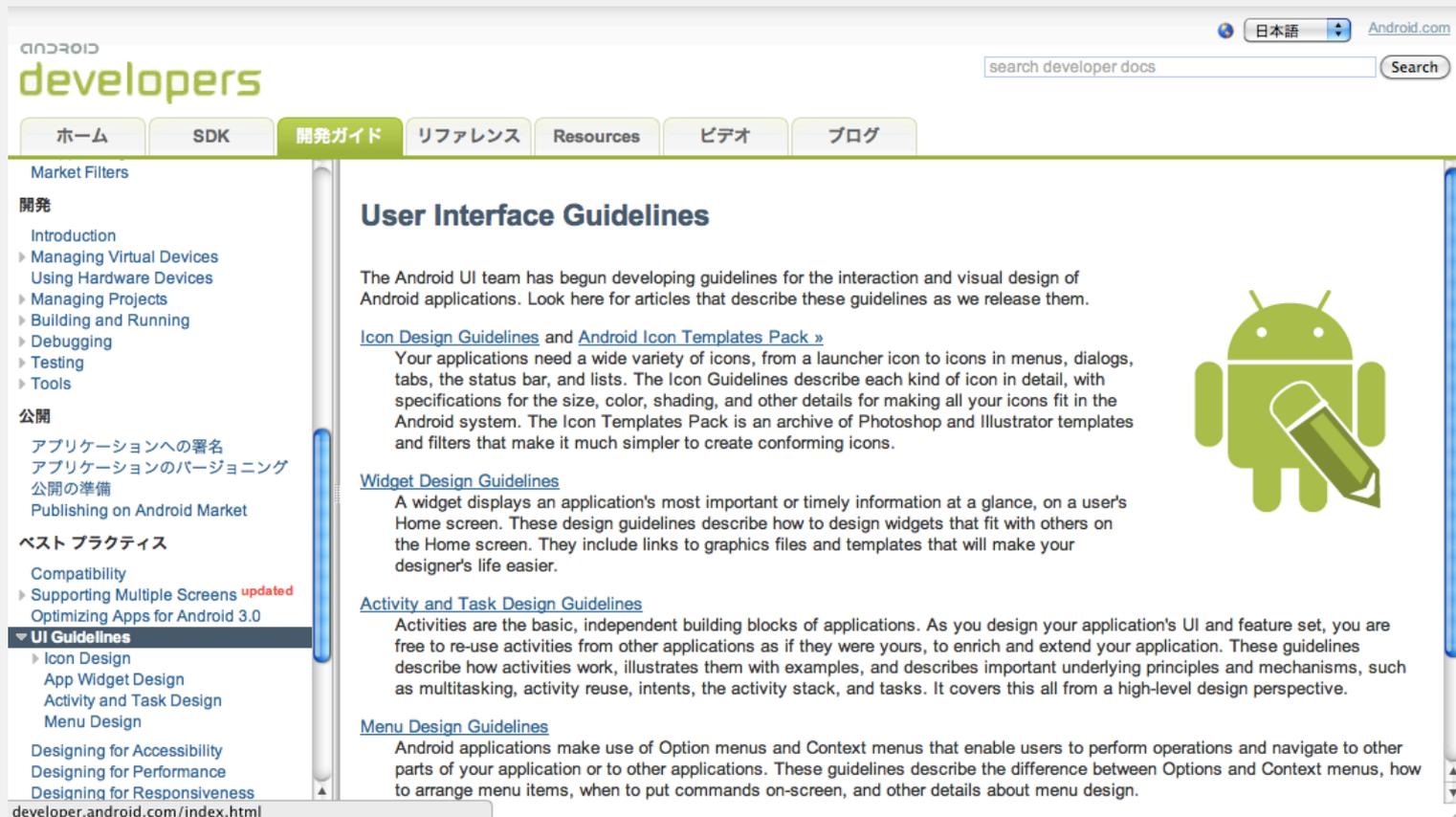
# Android UI Guidelines

- [http://developer.android.com/guide/practices/ui\\_guidelines](http://developer.android.com/guide/practices/ui_guidelines)



# Android Designがリリースされるまで

- 公式サイトにアプリアイコンやアイコン、ウィジェット画像の開発方法の解説



The screenshot shows the Android Developer website interface. At the top, there is a navigation bar with tabs for 'ホーム', 'SDK', '開発ガイド', 'リファレンス', 'Resources', 'ビデオ', and 'ブログ'. The '開発ガイド' tab is selected. Below the navigation bar, there is a search bar and a 'Search' button. The main content area is titled 'User Interface Guidelines' and contains several sections of text and links. On the right side of the main content area, there is a green Android robot icon holding a pencil. The left sidebar contains a list of navigation links, including 'Market Filters', '開発', '公開', 'ベスト プラクティス', and 'UI Guidelines'.

Android.com

search developer docs Search

開発ガイド

## User Interface Guidelines

The Android UI team has begun developing guidelines for the interaction and visual design of Android applications. Look here for articles that describe these guidelines as we release them.

[Icon Design Guidelines](#) and [Android Icon Templates Pack](#) »

Your applications need a wide variety of icons, from a launcher icon to icons in menus, dialogs, tabs, the status bar, and lists. The Icon Guidelines describe each kind of icon in detail, with specifications for the size, color, shading, and other details for making all your icons fit in the Android system. The Icon Templates Pack is an archive of Photoshop and Illustrator templates and filters that make it much simpler to create conforming icons.

[Widget Design Guidelines](#)

A widget displays an application's most important or timely information at a glance, on a user's Home screen. These design guidelines describe how to design widgets that fit with others on the Home screen. They include links to graphics files and templates that will make your designer's life easier.

[Activity and Task Design Guidelines](#)

Activities are the basic, independent building blocks of applications. As you design your application's UI and feature set, you are free to re-use activities from other applications as if they were yours, to enrich and extend your application. These guidelines describe how activities work, illustrates them with examples, and describes important underlying principles and mechanisms, such as multitasking, activity reuse, intents, the activity stack, and tasks. It covers this all from a high-level design perspective.

[Menu Design Guidelines](#)

Android applications make use of Option menus and Context menus that enable users to perform operations and navigate to other parts of your application or to other applications. These guidelines describe the difference between Options and Context menus, how to arrange menu items, when to put commands on-screen, and other details about menu design.

開発

- Introduction
- ▶ Managing Virtual Devices
- ▶ Using Hardware Devices
- ▶ Managing Projects
- ▶ Building and Running
- ▶ Debugging
- ▶ Testing
- ▶ Tools

公開

- アプリケーションへの署名
- アプリケーションのバージョンニング
- 公開の準備
- Publishing on Android Market

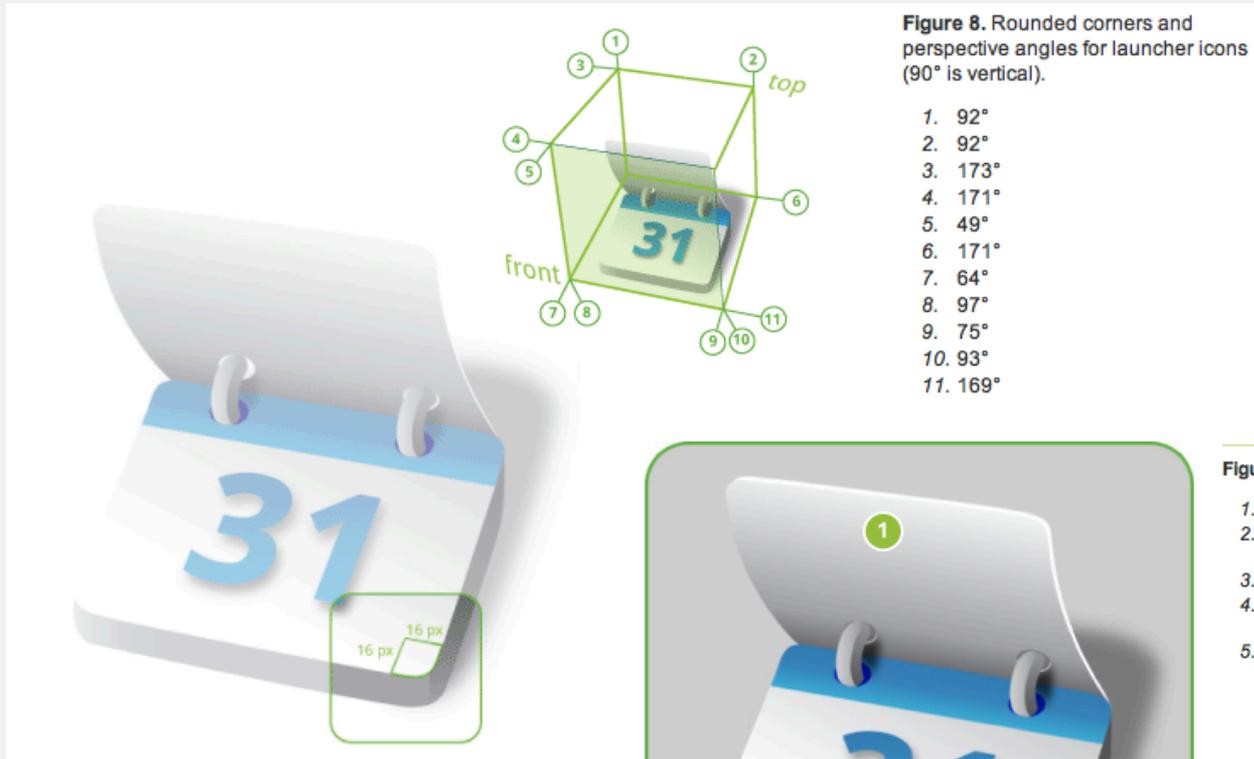
ベスト プラクティス

- Compatibility
- ▶ Supporting Multiple Screens updated
- Optimizing Apps for Android 3.0
- ▼ **UI Guidelines**
- ▶ Icon Design
- ▶ App Widget Design
- ▶ Activity and Task Design
- ▶ Menu Design
- ▶ Designing for Accessibility
- ▶ Designing for Performance
- ▶ Designing for Responsiveness

developer.android.com/index.html

# 以前のアイコンデザイン

- Android 1.6またはそれ以前のもの、Simplified 3D Icon



# 以前のアイコンデザイン 2

- Android 2.0/2.1... 立体からビビットな平面表現へ



# Google I/O 2010で始めて公式な解説...

- <http://bit.ly/IO2010AndroidUI>

## Android UI Design Patterns

Richard Fulcher, Chris Nesladek,  
Jim Palmer, Christian Robertson  
May 19, 2010

Google  May 19 - 20, 2010  
Moscone Center, San Francisco

[Home](#)

[Agenda](#)

[Session Videos](#)

[Photos](#)

[Developer Sandbox](#)

[Speakers](#)

[Conference Map](#)

[« Last year](#)



### Android UI design patterns

**Android - Chris Nesladek, German Bauer, Richard Fulcher, Christian Robertson, Jim Palmer**

In this session, the Android User Experience team will show the types of patterns you can use to build a great Android application. We'll cover things like how to use Interactive Titlebars, Quick Contacts, and Bottom bars as well some new patterns which will get an I/O-only preview. The team will be also available for a no holds barred Q&A session.



[Download the PDF](#)

**Session type:** 201

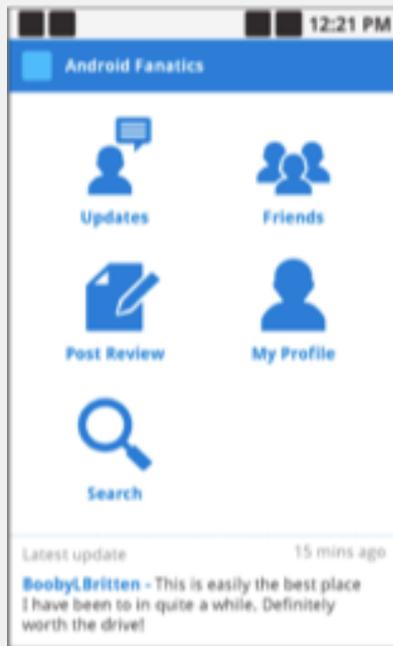
**Attendee requirements:** Proficiency in Java and a solid grasp of Android's fundamental concepts

**Tags:** Android, Mobile, Java

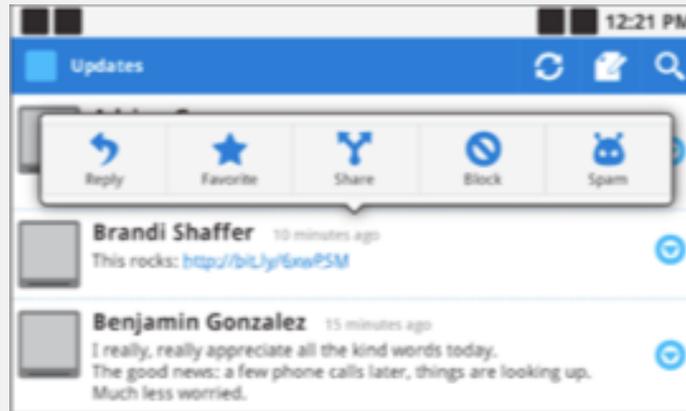
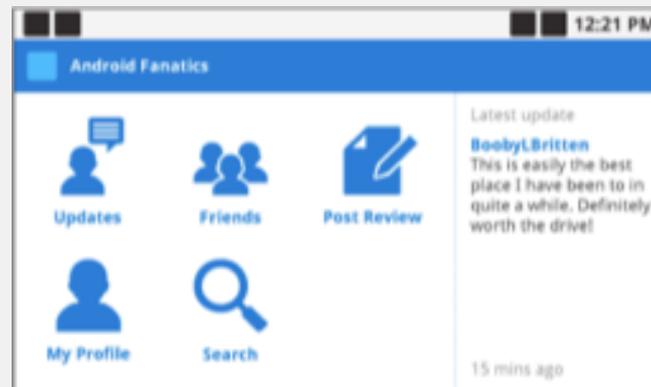
**Hashtag:** #android5

# Google I/O 2010で始めて公式な解説...

- <http://bit.ly/I02010AndroidUI>



Dashboard



Action Bar / Quick Action



Search Bar

# Dive into Mobile 2010でタブレット初披露

- まったく新しいUIとデザインテイスト



©engadget 2010

CES2011で公式に発表



# Google I/O 2011でタブレット向けUIを解説

- <http://bit.ly/IO2011AndroidUI>

## Designing and Implementing Android UIs for Phones and Tablets

Matias Duarte  
Rich Fulcher  
Roman Nurik  
Adam Powell  
Christian Robertson

2



May 10-11, 2011 / Moscone Center, San Francisco

[Agenda](#) [Sessions](#) [Sandbox](#) [FAQ](#) [Info](#) [#io2011](#)

### Designing and Implementing Android UIs for Phones and Tablets

Roman Nurik, Adam Powell, Richard Fulcher, Christian Robertson, Matias Duarte

There are a large number of Android tablet devices starting to ship. This session discusses the new APIs and tools available to developers for use in constructing apps that work well on them, and provides guidance on creating good user experience for users of these devices.

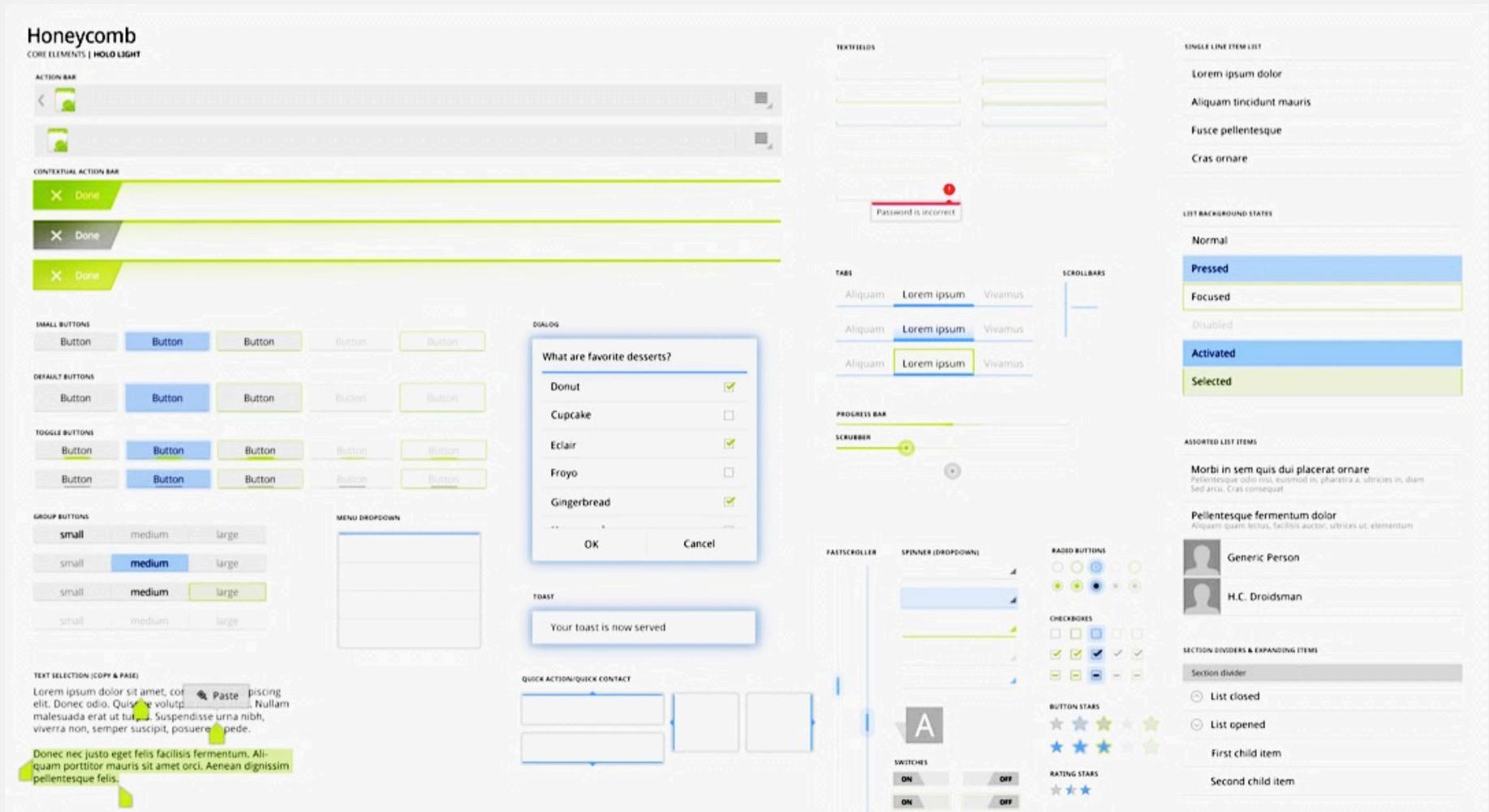
Level: 201  
Track: [Android](#)  
Time: May 11, 12:30PM - 01:30PM  
Room: Room 11

[Session presentation](#)  
[Session notes](#)



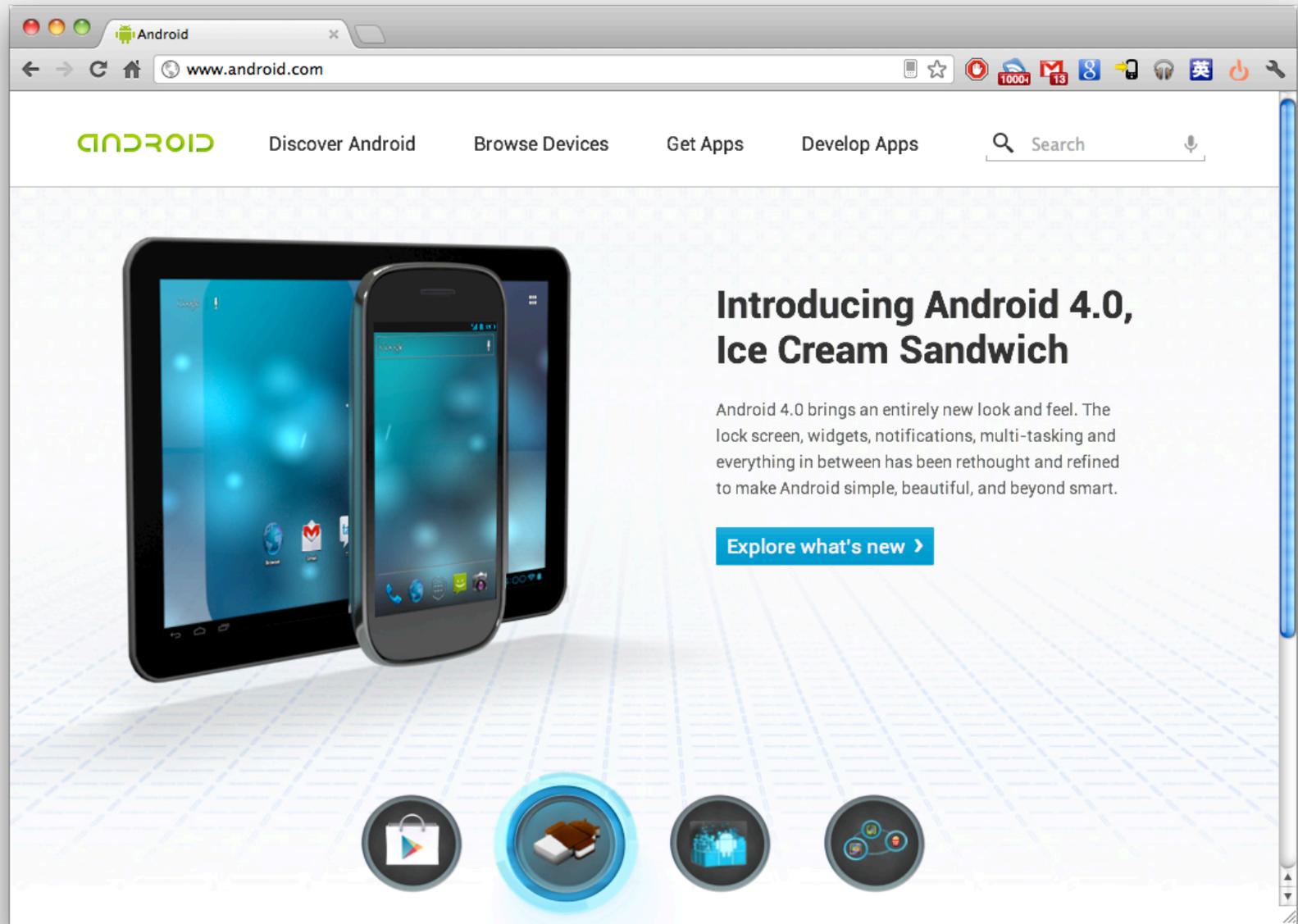
# Google I/O 2011でタブレット向けUIを解説

- <http://bit.ly/IO2011AndroidUI>



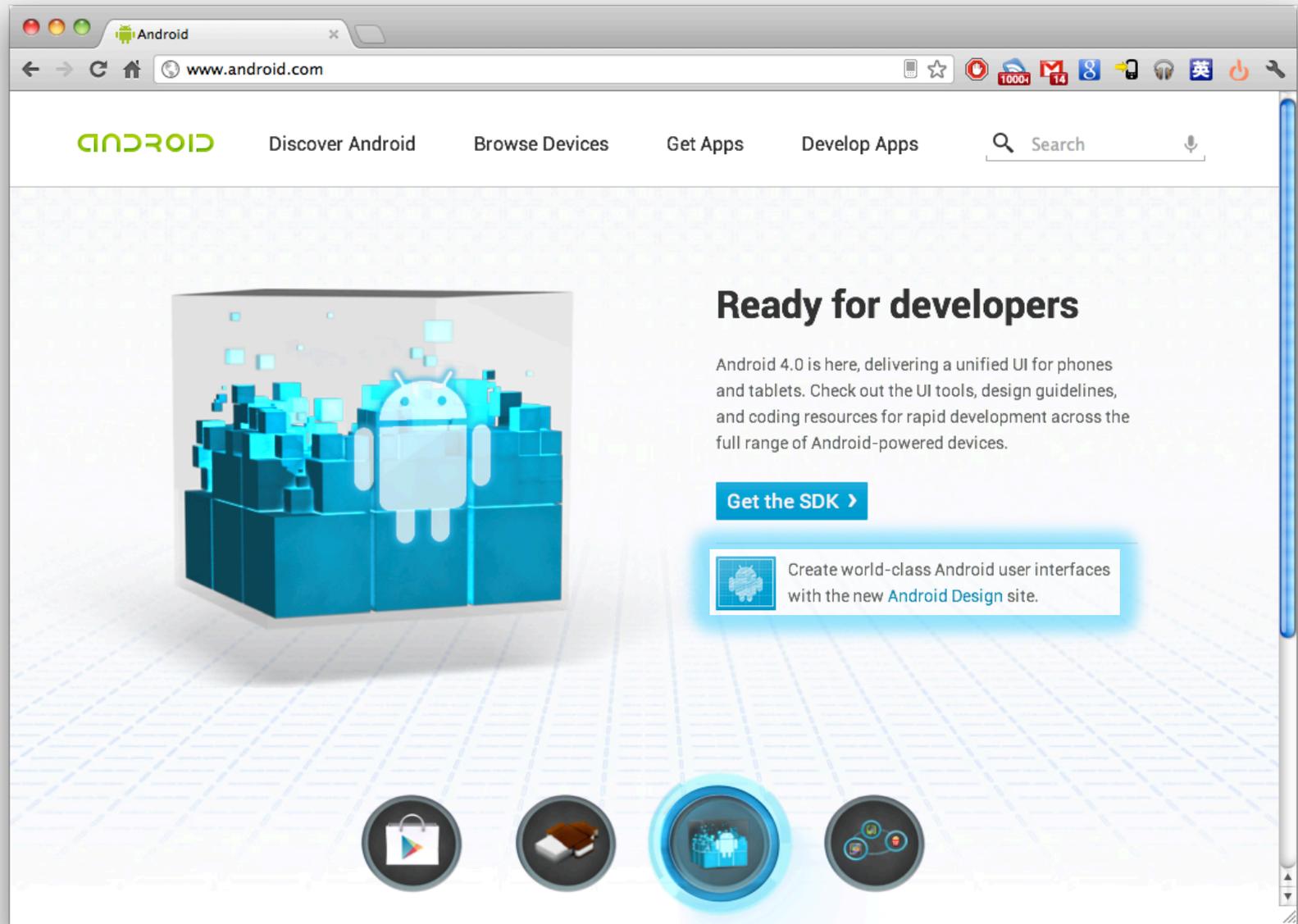
# 2011/10、ICSが登場。サイトが刷新

- <http://android.com>



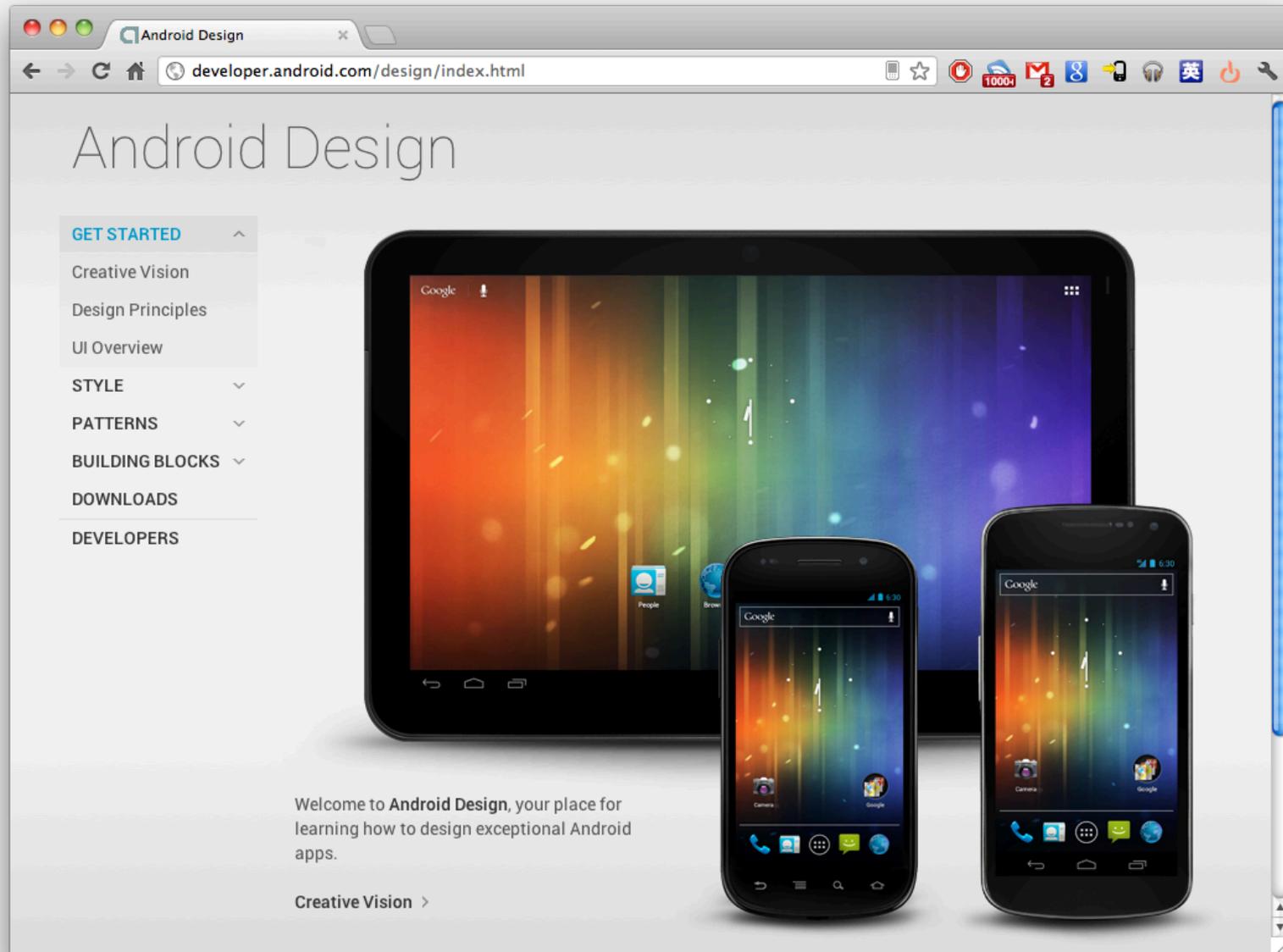
# 2012/1/12、Android Designが追加

- <http://android.com>



# Android Design

- <http://developer.android.com/design/>



# Android Design

- 待望の公式デザインガイド（ICS/4.0向け）
- Creative Commons 2.5
- Get Started, Style, Patterns, Building Blocks, Downloadsの5章立て



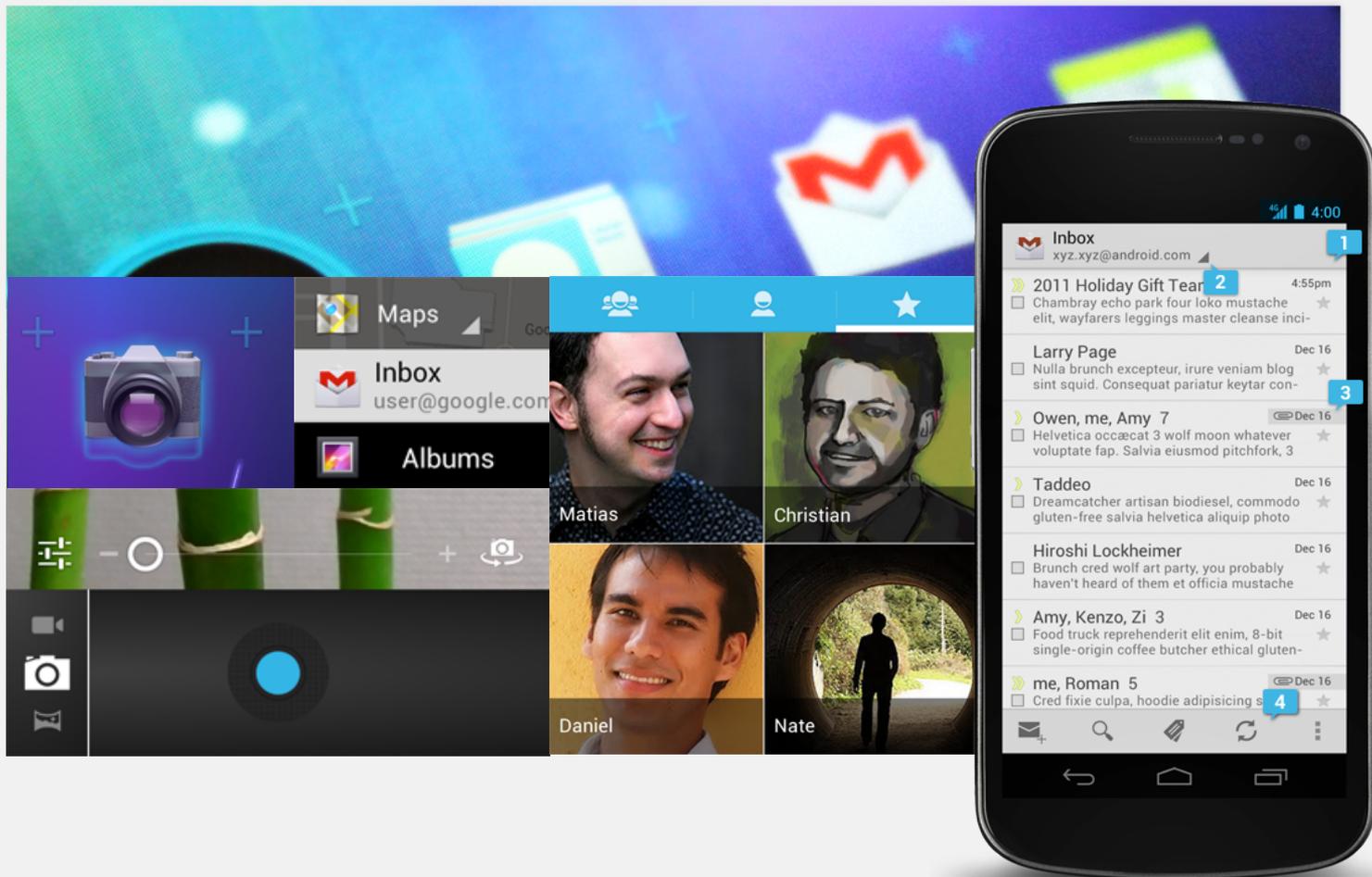
# Android Design

1. Get Started
2. Style
3. Patterns
4. Building Blocks
5. Downloads



# 1. Get Started

- 「始めに」
- 方向性／コンセプト、デザイン原則、UIの全体像



## 2. Style

- スタイルガイド
- 見た目の世界観の構築、アプリのブランディング



# 3. Patterns

- デザインパターン／パターンランゲージ
- デザインする対象の構造やプロセスに潜む「関係性」を体系化したもの



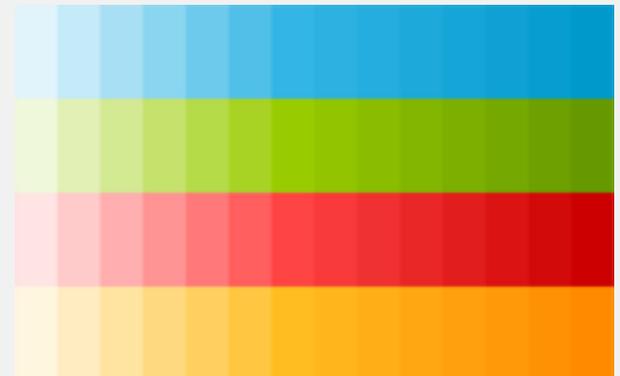
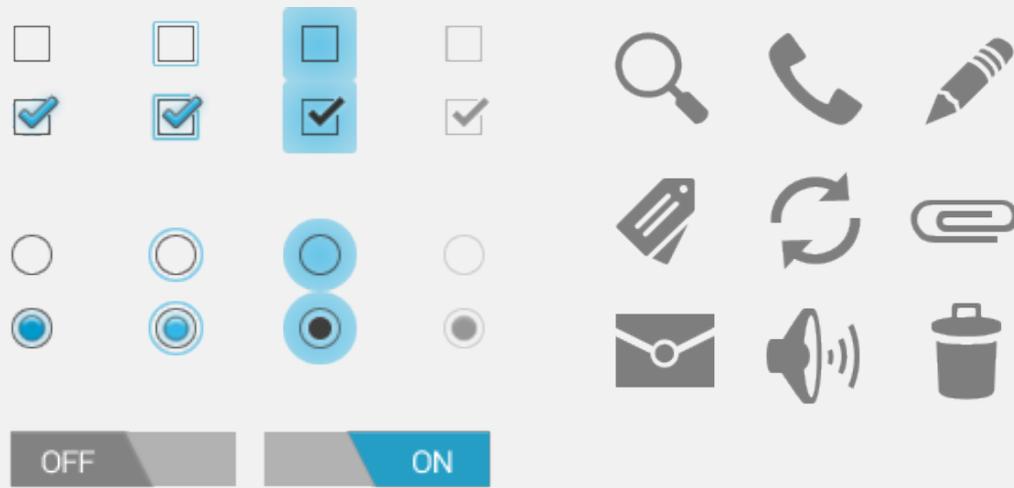
# 4. Building Blocks

- コンポーネントコレクション
- デザインの一貫性、ユーザー体験の質の向上



# 5. Downloads

- デザイン要素のダウンロードリンク
- ステンシル／シンボルのテンプレート
- アイコンデータ、テンプレート
- Robotoフォントデータ、見本帳
- 色見本／カラーズウォッチ



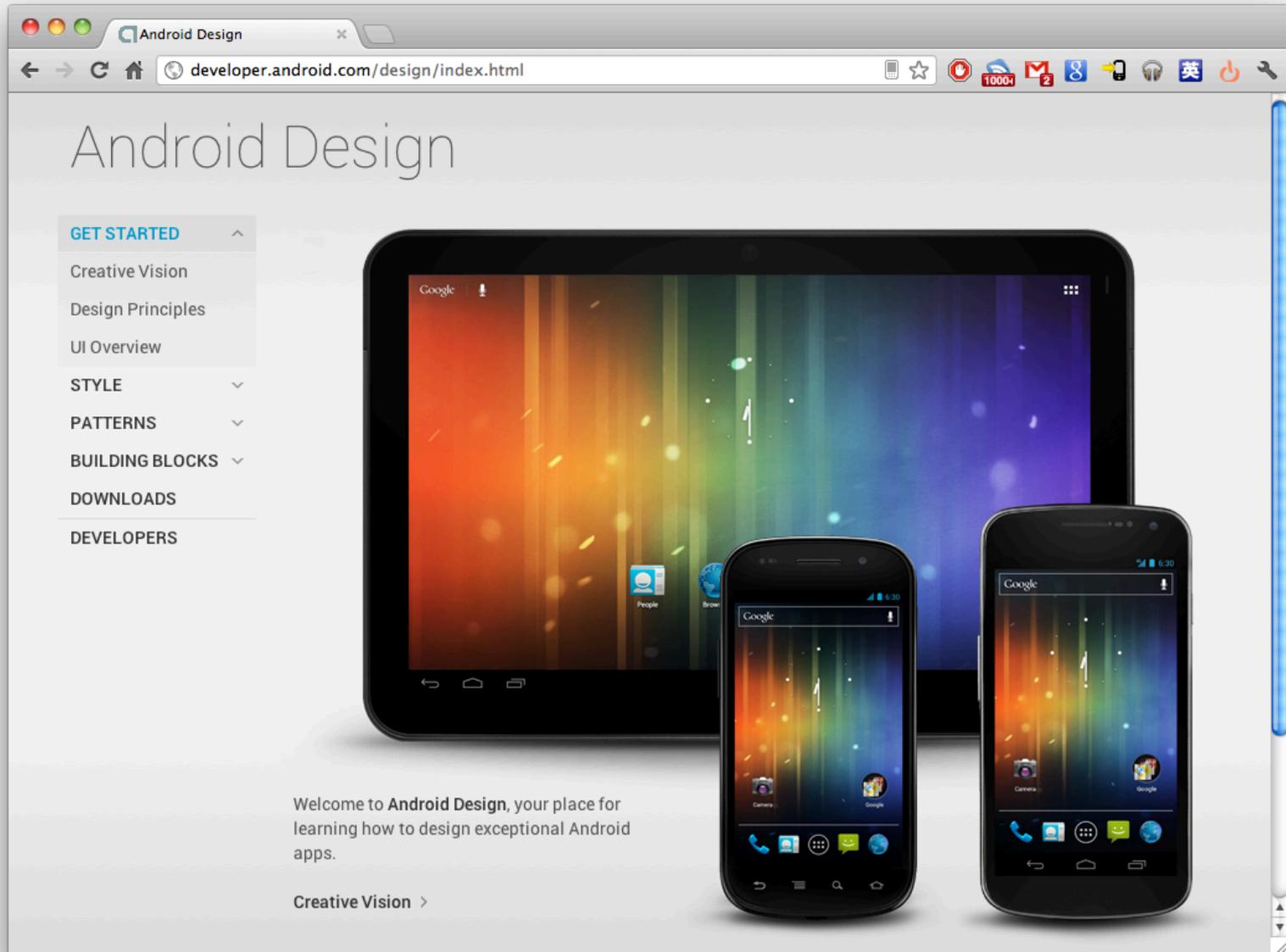
# Android Design

1. Get Started (始めに)
2. Style (スタイルガイド)
3. Patterns (デザインパターン/パターンランゲージ)
4. Building Blocks (コンポーネントコレクション)
5. Downloads



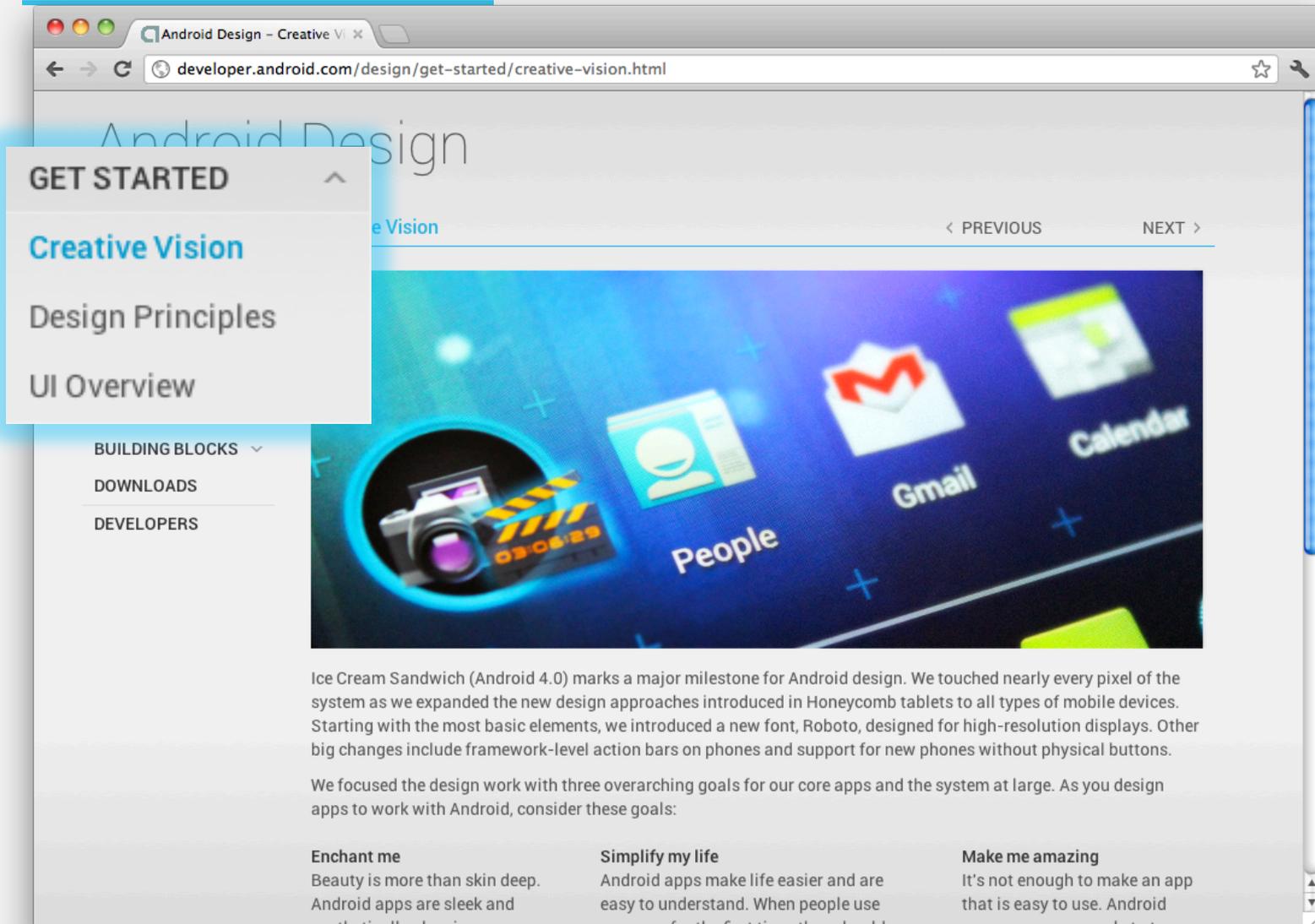
# Android Design

- <http://developer.android.com/design/>



# Android Design / Get Started

- <http://developer.android.com/design/get-started/creative-vision.html>



Android Design

GET STARTED

- Creative Vision
- Design Principles
- UI Overview

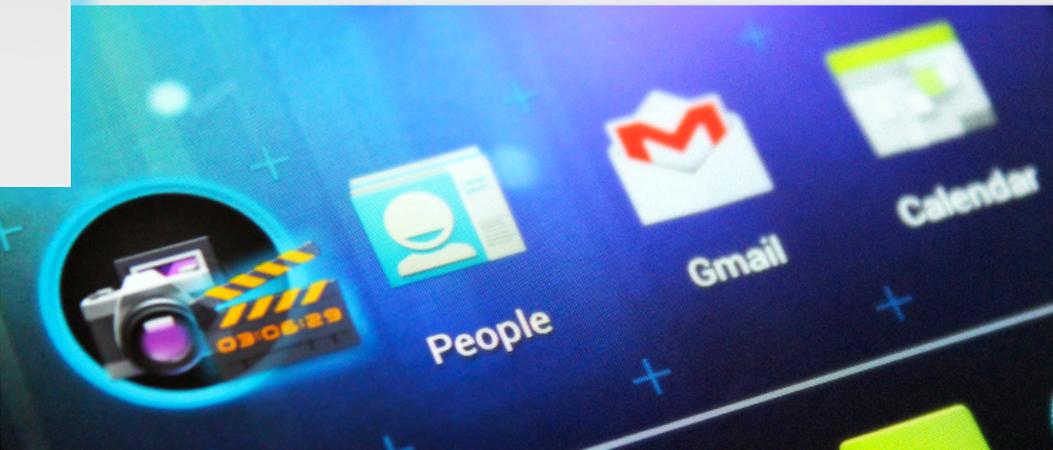
BUILDING BLOCKS ▾

DOWNLOADS

DEVELOPERS

< PREVIOUS

NEXT >



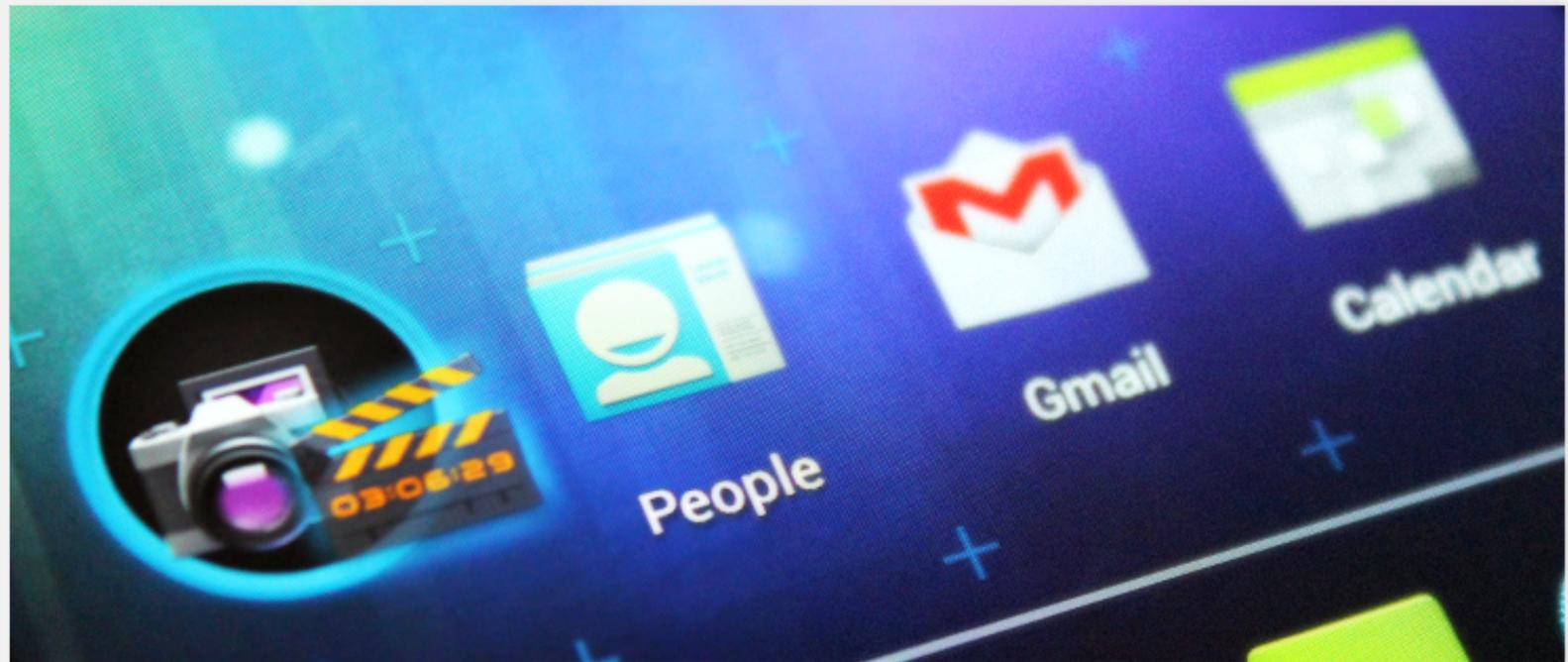
Ice Cream Sandwich (Android 4.0) marks a major milestone for Android design. We touched nearly every pixel of the system as we expanded the new design approaches introduced in Honeycomb tablets to all types of mobile devices. Starting with the most basic elements, we introduced a new font, Roboto, designed for high-resolution displays. Other big changes include framework-level action bars on phones and support for new phones without physical buttons.

We focused the design work with three overarching goals for our core apps and the system at large. As you design apps to work with Android, consider these goals:

- Enchant me**  
Beauty is more than skin deep. Android apps are sleek and
- Simplify my life**  
Android apps make life easier and are easy to understand. When people use
- Make me amazing**  
It's not enough to make an app that is easy to use. Android

# Get Started 1: Creative Vision

- 方向性／コンセプト、3つのゴール
  - 魅了する (Enchant me)
  - 物事を楽にする (Simplify my life)
  - 驚きをあたえる (Make me amazing)

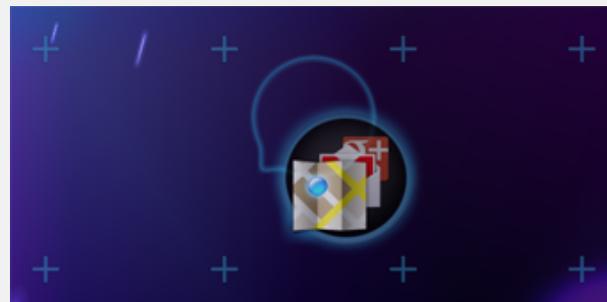


# Get Started 2: Design Principles 1

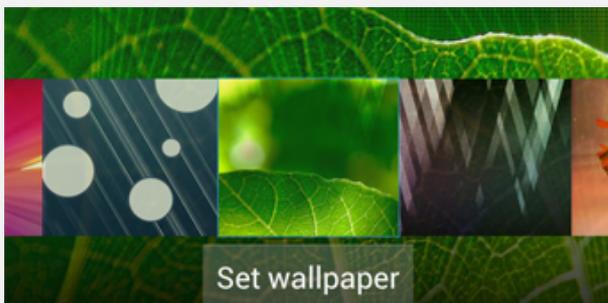
- デザイン原則1「魅了する」



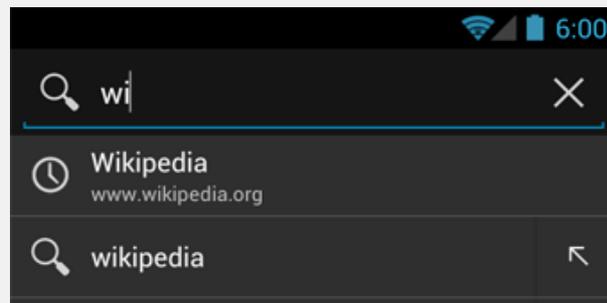
驚きのある動き



リアルなオブジェクト



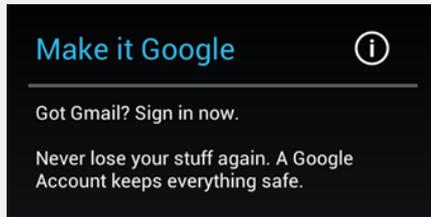
自分流にカスタマイズ



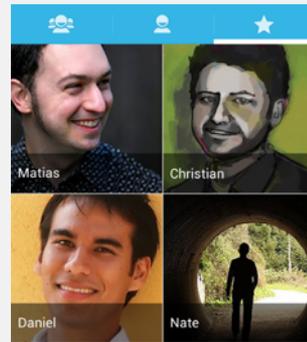
自分のことを知っている

# Get Started 2: Design Principles 2

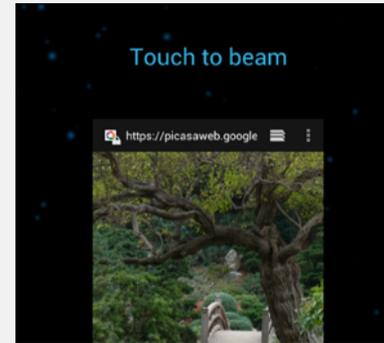
## • デザイン原則 2 「物事を楽にする」



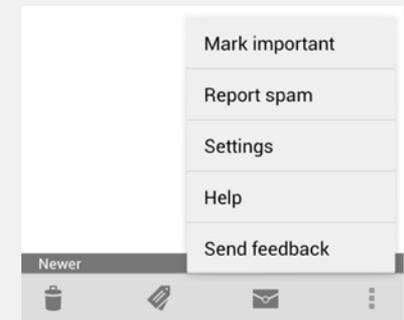
メッセージは簡潔に



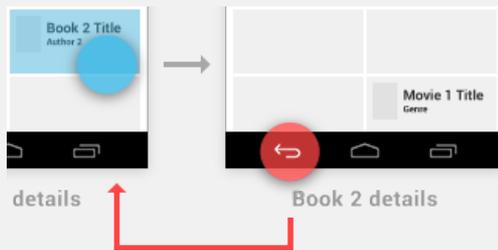
絵は言葉よりも早い



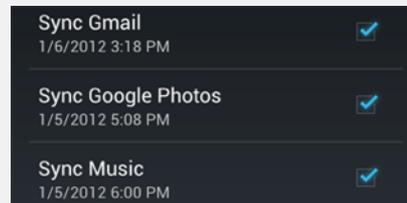
適切な回答を提示し  
最終決断をさせる



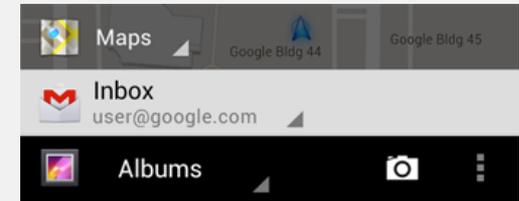
必要な時に  
必要なものをだけを



今どこにいるか常にわかる



端末を変えても  
データを失わない



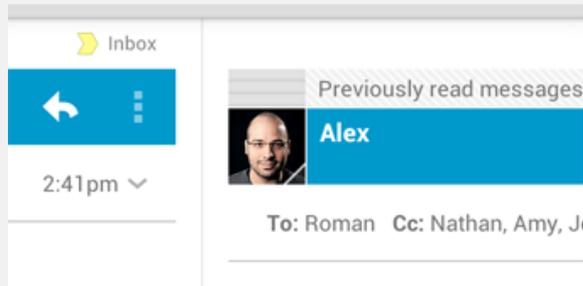
同じ見た目は同じ動き



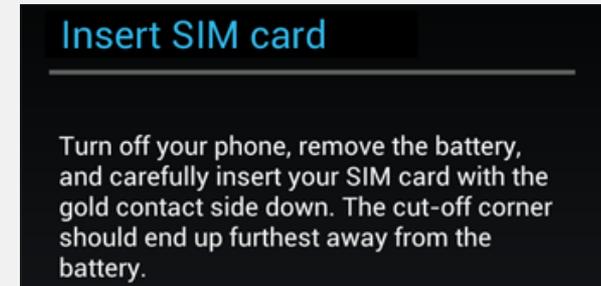
本当に重要な事以外で中断させない

# Get Started 2: Design Principles 3

- デザイン原則 3 「驚きをあたえる」



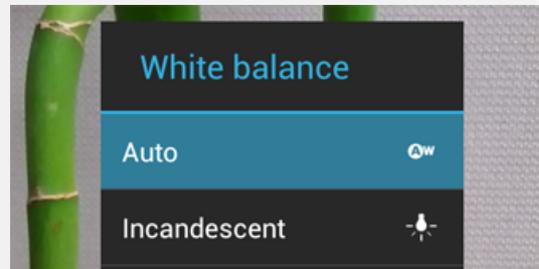
ビジュアルパターンやスワイプ、  
どこでも使ってる小技を



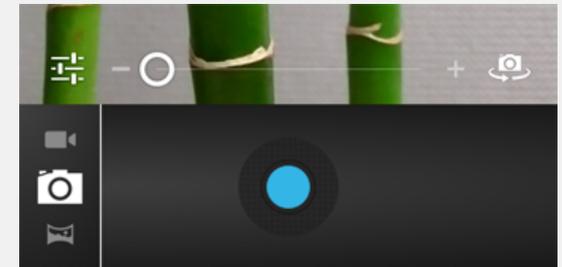
失敗はユーザーのせいじゃない



簡単は事でも  
親切なフォローを



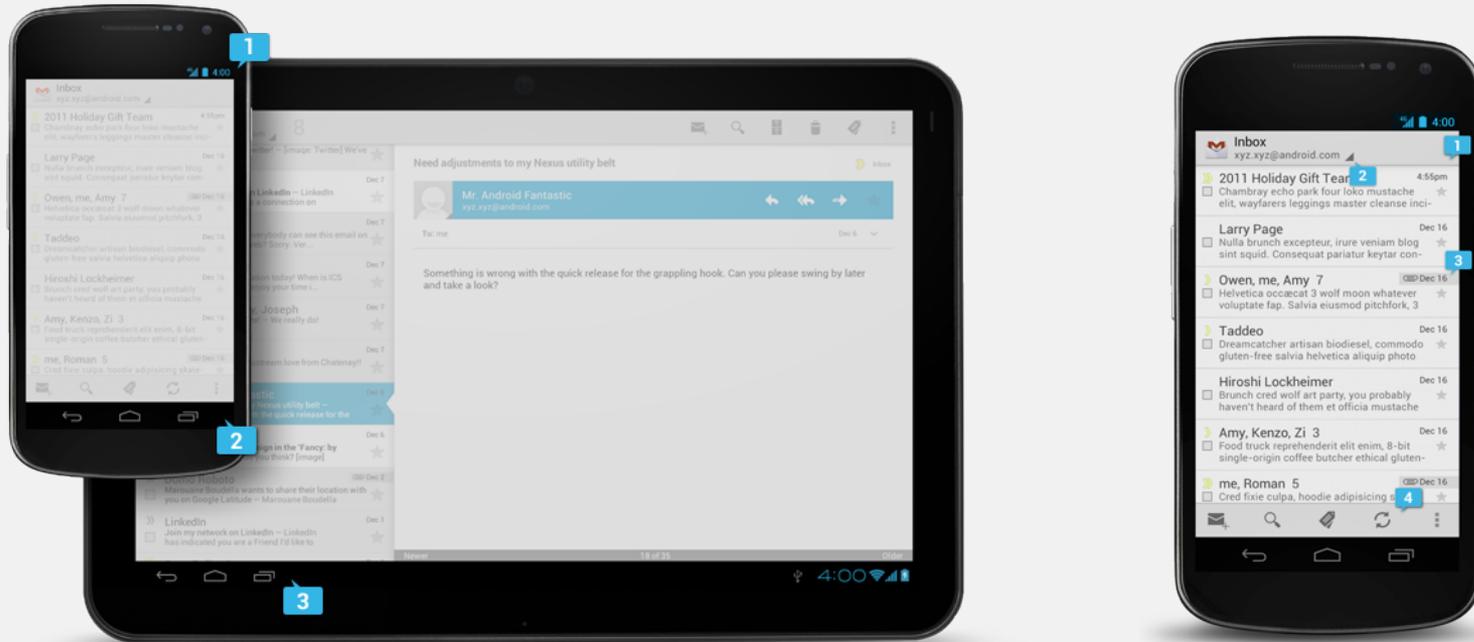
今まで難しかった  
タスクを簡単に



重要な機能を最優先

# Get Started 3: UI Overview

- UIの全体像、主要な画面の説明
  - ホーム画面／アプリ一覧画面／最近使ったアプリの一覧画面
  - ステータスバー／ナビゲーションバー／システムバー
  - ノーティフィケーション（通知）
  - 標準的なアプリUI画面



# Android Design / Style

- <http://developer.android.com/design/style/index.html>

The image shows a screenshot of the Android Design Style guide website. A navigation menu is overlaid on the left side, listing various design topics. The main content area features a central smartphone displaying a colorful interface with a grid of numbers and various icons. Below the phone, there is a section titled "Build visually compelling apps that look great on any device." and a link to "Devices and Displays".

**STYLE**

- Devices and Displays
- Themes
- Touch Feedback
- Metrics and Grids
- Typography
- Color
- Iconography
- Writing Style

**BUILDING BLOCKS** ▾

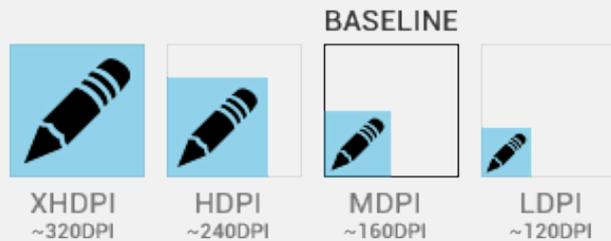
- DOWNLOADS
- DEVELOPERS

Build visually compelling apps that look great on any device.

[Devices and Displays](#) >

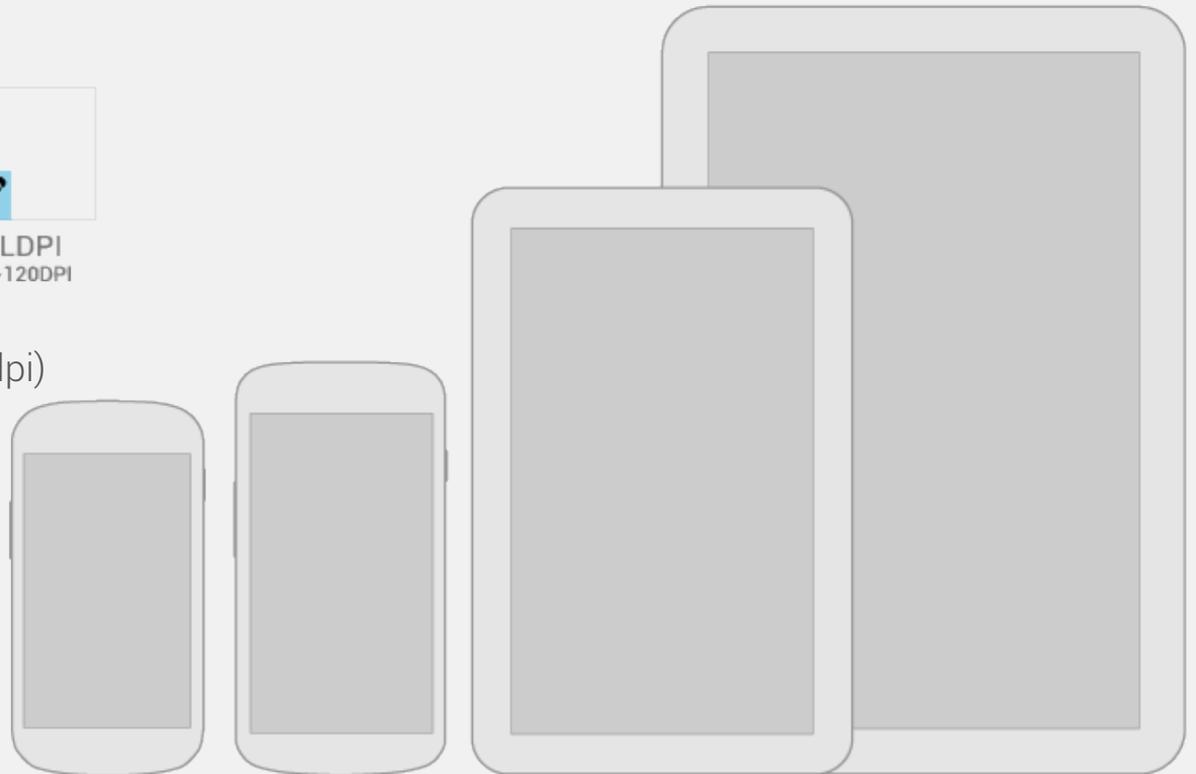
# Style 1: Devices and Displays

- デバイスと表示
  - フレキシブルに
  - 画面に合わせてレイアウトを最適化する
  - アセットは全て準備する



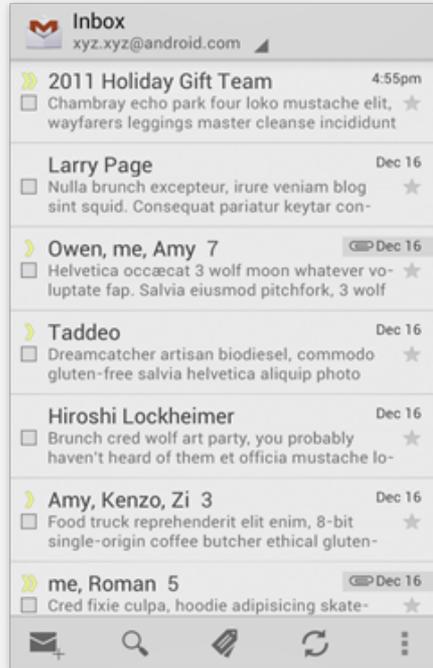
32X32dp

MDPI = Medium Density (160dpi)



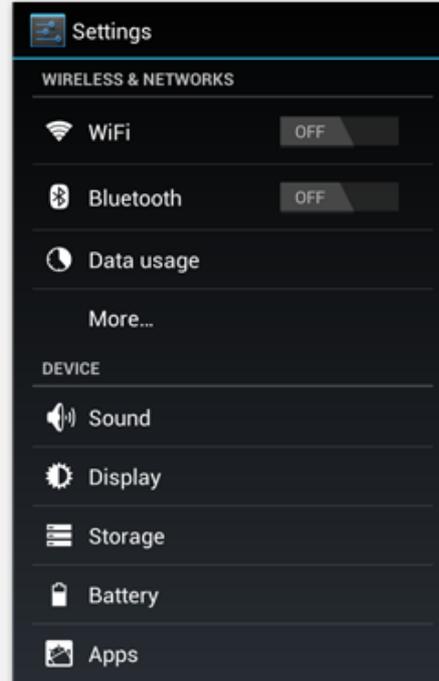
# Style 2: Themes

- デザインテーマ

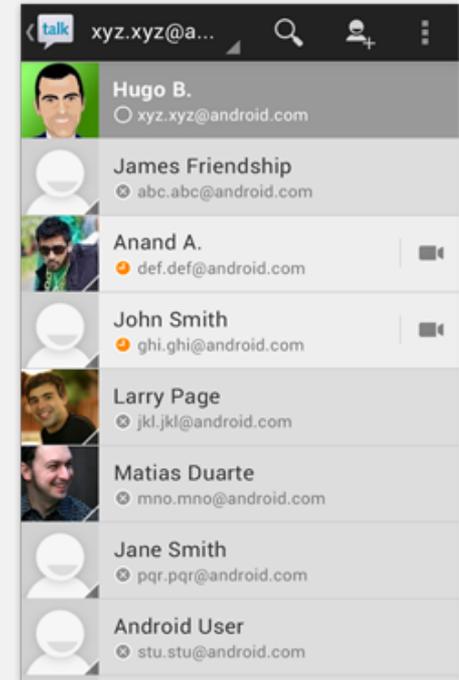


Hole Light

(今後の推奨?)



Hole Dark



Hole Light  
with dark Action Bar

# Style 3: Touch Feedback

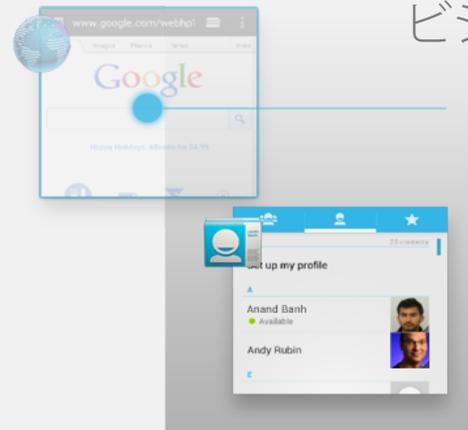
- タッチ時のフィードバック



視覚的な判りやすい  
ビジュアルキュー

## 5つの状態表示

Normal	REMAINS STATIC
Pressed	ILLUMINATES WITH COLOR
Focused	DRAWS 50% OF THE PRESSED VALUE (OPTIONAL 2DP BORDER FILL AT PRESSED VALUE)
Disabled	DRAWS 30% OF THE NORMAL STATE
Disabled & focused	DRAWS 30% OF THE FOCUSED STATE



境界線（ドンつき）

# Style 4: Metrics and Grids 1

- デバイスの物理サイズとスクリーン密度

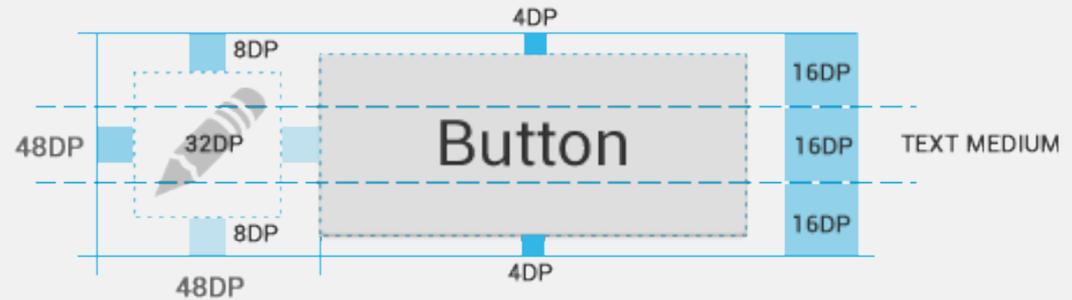
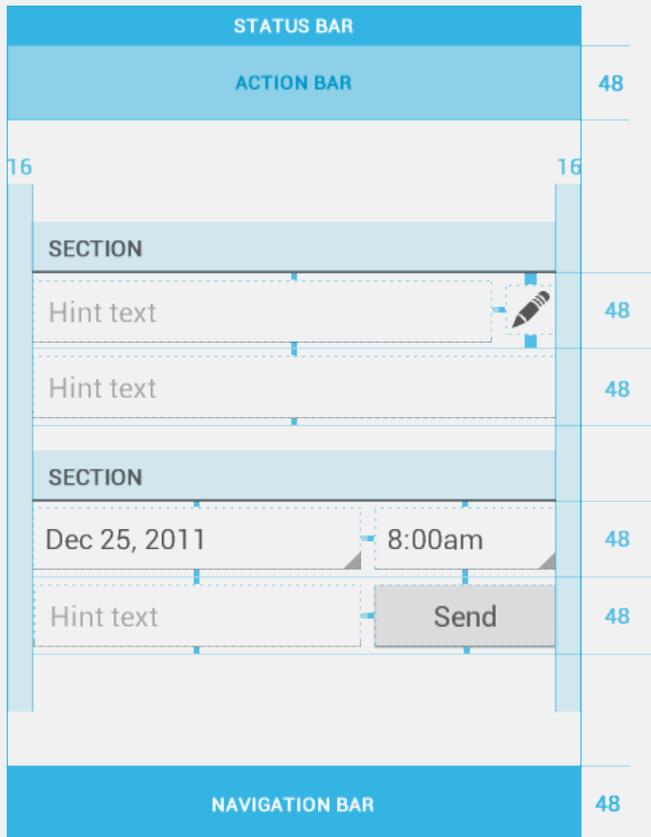
デバイスの物理的密度に依存する密度非依存ピクセル (Device-independent pixels: **dp**) とスクリーン密度 (Screen density, Dot per Inch: **dpi**) の関係



# Style 4: Metrics and Grids 2

- 48DPのリズム

<b>48</b>	 <b>Medium title</b>	<b>Single list item</b>
	<i>single line item with avatar + text</i>	<i>single line item with text</i>



48DP = 9mm

タッチ操作での推奨ターゲットエリアの表示サイズは7~10mm。必ず7mm以上に！

推奨は7cmではなく7mm (謎)  
Android Developer Lab Tokyo 2011に参加した皆さん、すいません。

# Style 5: Typography

- Roboto Font、新しい書体

Roboto  
**SUNGLASSES**  
*Self-driving robot ice cream truck*  
**Fudgesicles only 25¢**  
**ICE CREAM**  
*Marshmallows & almonds*  
#9876543210  
***Music around the block***  
*Summer heat rising up from the sidewalk*

**Text Color Primary Dark**  
Text Color Secondary Dark

**Text Color Primary Light**  
Text Color Secondary Light

標準文字色

**Text Size Micro** 12sp

**Text Size Small** 14sp

**Text Size Medium** 16sp

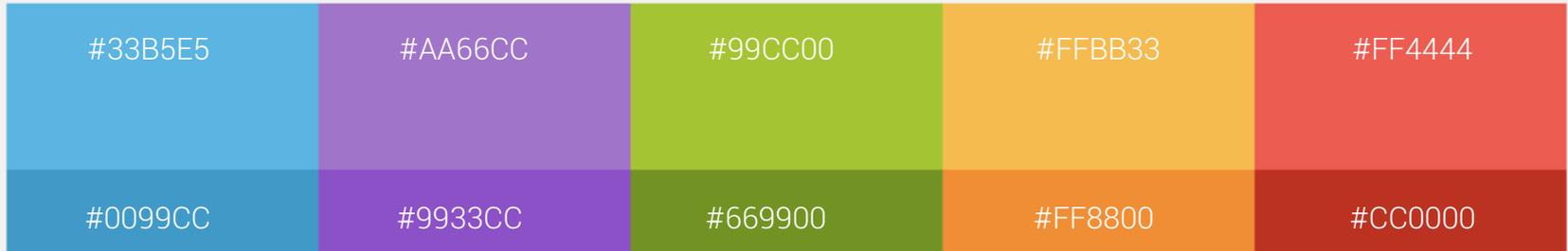
**Text Size Large** 18sp

標準規定サイズ (sp)

※sp = Scale-independent pixels

# Style 6: Color

- カラースキーム



# Style 7: Iconography 1

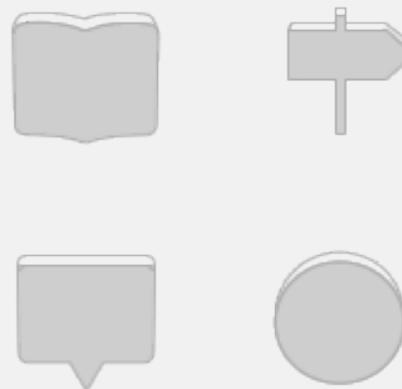
- ランチャーアイコン



Google Playでの表示は  
512x512 dp



サイズ: 48x48 dp



スタイル:  
明確な形状で立体的に  
正面、若干上から見た感じ  
の遠近感



# Style 7: Iconography 2

- Action Barアイコン



表示サイズは32x32 dp



24x24 dp に収まる  
意匠で

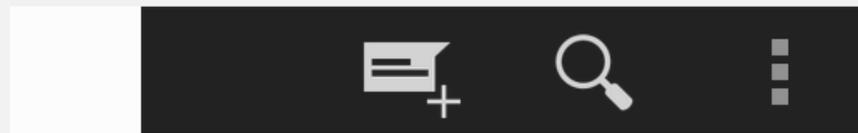


スタイル:  
ピクトグラム  
細いものは斜め45度  
線は2 dp以上の太さに

Colors: #333333  
Enabled: 60% opacity  
Disabled: 30% opacity

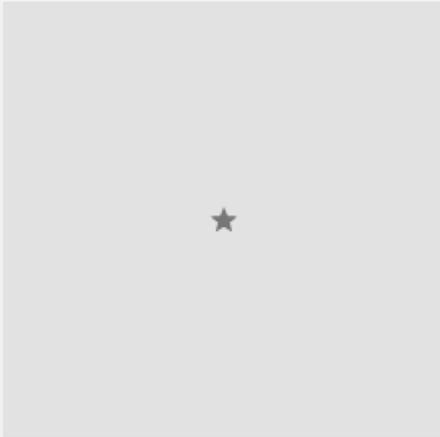


Colors: #FFFFFF  
Enabled: 80% opacity  
Disabled: 30% opacity

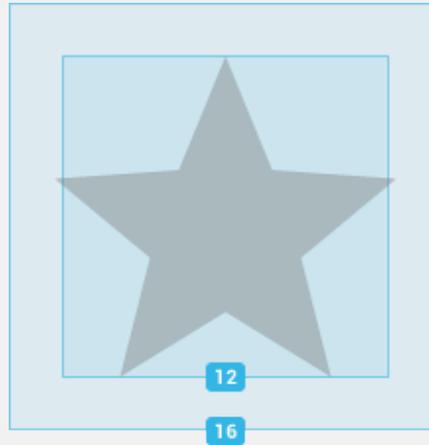


# Style 7: Iconography 3

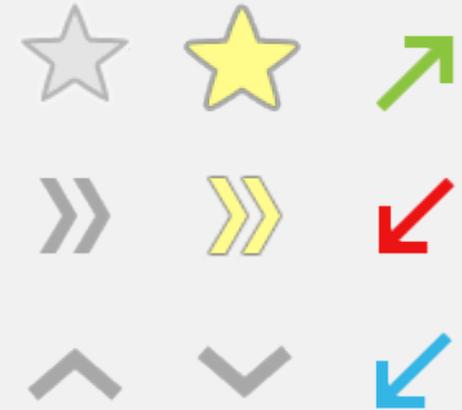
- スモール／コンテキストアイコン



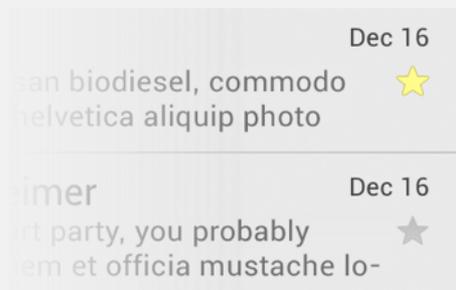
表示サイズは 16x16 dp



12x12 dp に収まる  
意匠で

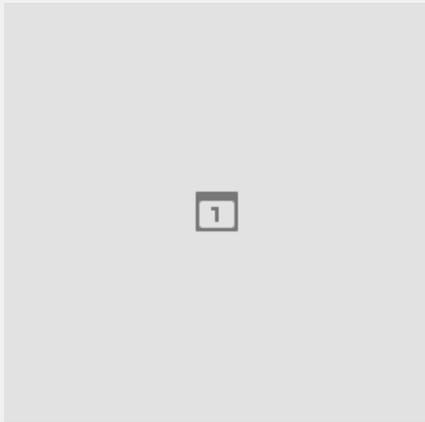


スタイル:  
ニュートラルで  
フラット、シンプル。  
線よりも形、  
視覚的なメタファー

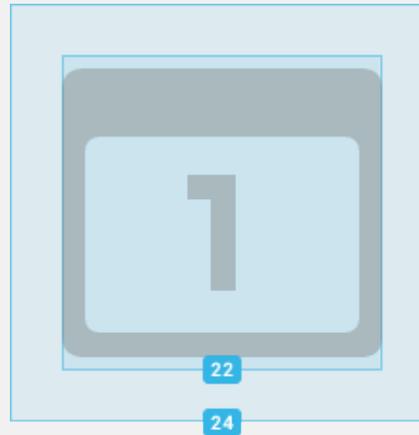


# Style 7: Iconography 4

- ノーティフィケーション（通知）アイコン



表示サイズは 24x24 dp



22x22 dp に収まる  
意匠で



スタイル:  
フラット、シンプル  
必ずランチャーアイコンと  
同じメタファーを用いる

# Style 8: Writing Style

## 1. 簡潔に

✗ Too formal

Consult the documentation that came with your phone for further instructions.

✓ Better

Read the instructions that came with your phone.

## 2. シンプルに

✗ Confusing

**Use GPS satellites**  
When locating, accurate to street level.

✓ Better

**GPS**  
Let apps use satellites to pinpoint your location.

## 3. フレンドリーに

✗ Confusing and annoying—"Sorry" just rubs salt in the wound.

**Sorry!**  
Activity MyAppActivity (in application MyApp) is not responding.  
Force close      Wait      Report

✓ Shorter, more direct, no faux-apologetic title:

**MyApp isn't responding.**  
Do you want to close it?  
Wait      Report      Close

## 4. 重要な事を最初に

✗ Top news last

77 other people +1'd this, including Larry Page.

✓ Top news first

Larry Page and 77 others +1'd this.

✗ Task last

Touch Next to complete setup using a Wi-Fi connection.

✓ Task first

To finish setup using Wi-Fi, touch Next.

## 5. 説明は必要な事だけ

✗ From a Setup Wizard screen

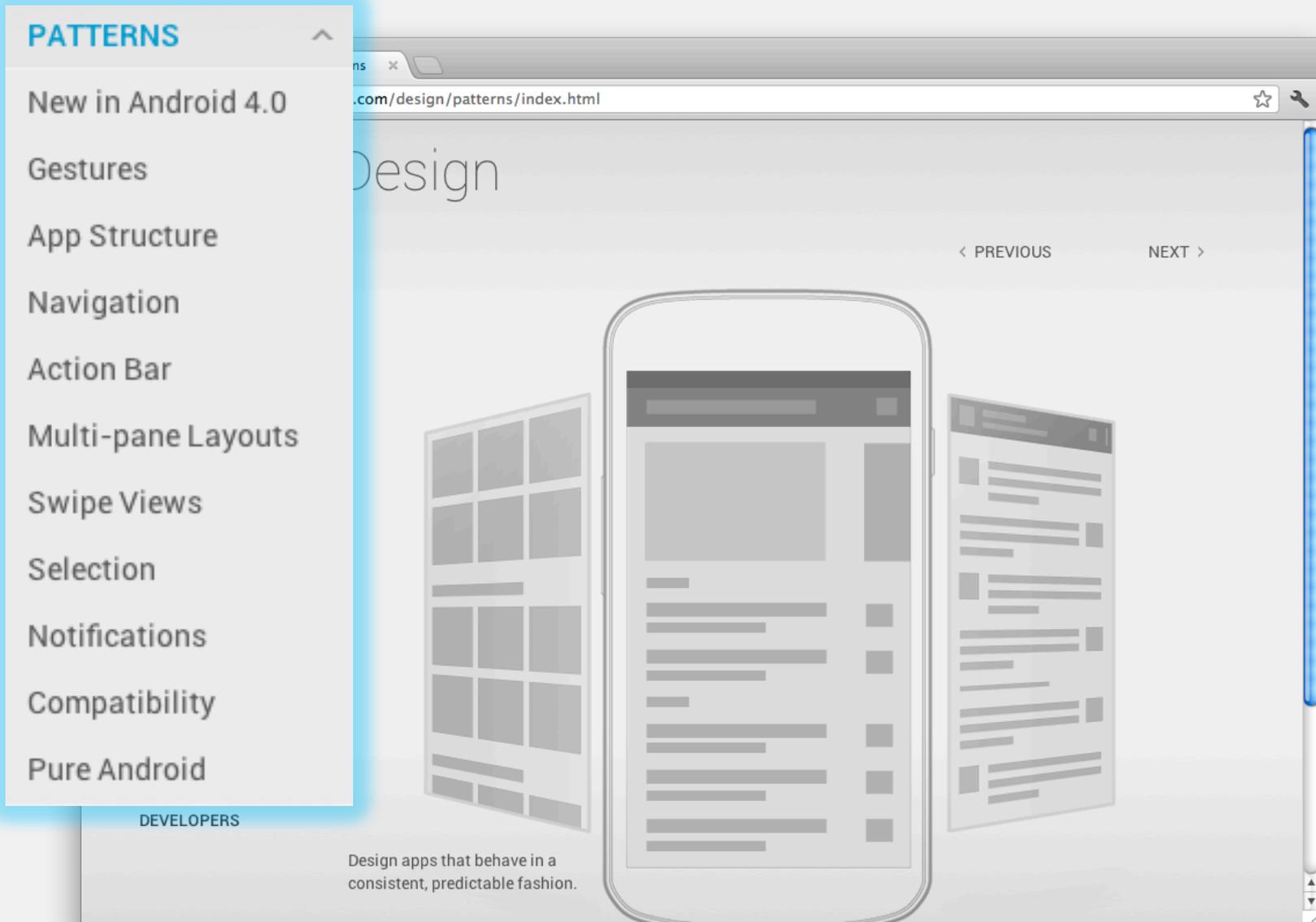
**Signing in...**  
Your phone needs to communicate with Google servers to sign in to your account. This may take up to five minutes.

✓ From a Setup Wizard screen

**Signing in...**  
Your phone is contacting Google. This can take up to 5 minutes.

# Android Design / Patterns

- <http://developer.android.com/design/building-blocks/>



The image shows a screenshot of the Android Design Patterns page. A navigation menu is overlaid on the left side, listing various design patterns. The menu items are: PATTERNS (with an upward arrow), New in Android 4.0, Gestures, App Structure, Navigation, Action Bar, Multi-pane Layouts, Swipe Views, Selection, Notifications, Compatibility, and Pure Android. Below the menu, the main content area of the page is visible, featuring a large illustration of a smartphone and two tablets displaying various UI layouts. The text "Design apps that behave in a consistent, predictable fashion." is visible at the bottom of the page. The browser address bar shows the URL "http://developer.android.com/design/patterns/index.html".

**PATTERNS** ^

- New in Android 4.0
- Gestures
- App Structure
- Navigation
- Action Bar
- Multi-pane Layouts
- Swipe Views
- Selection
- Notifications
- Compatibility
- Pure Android

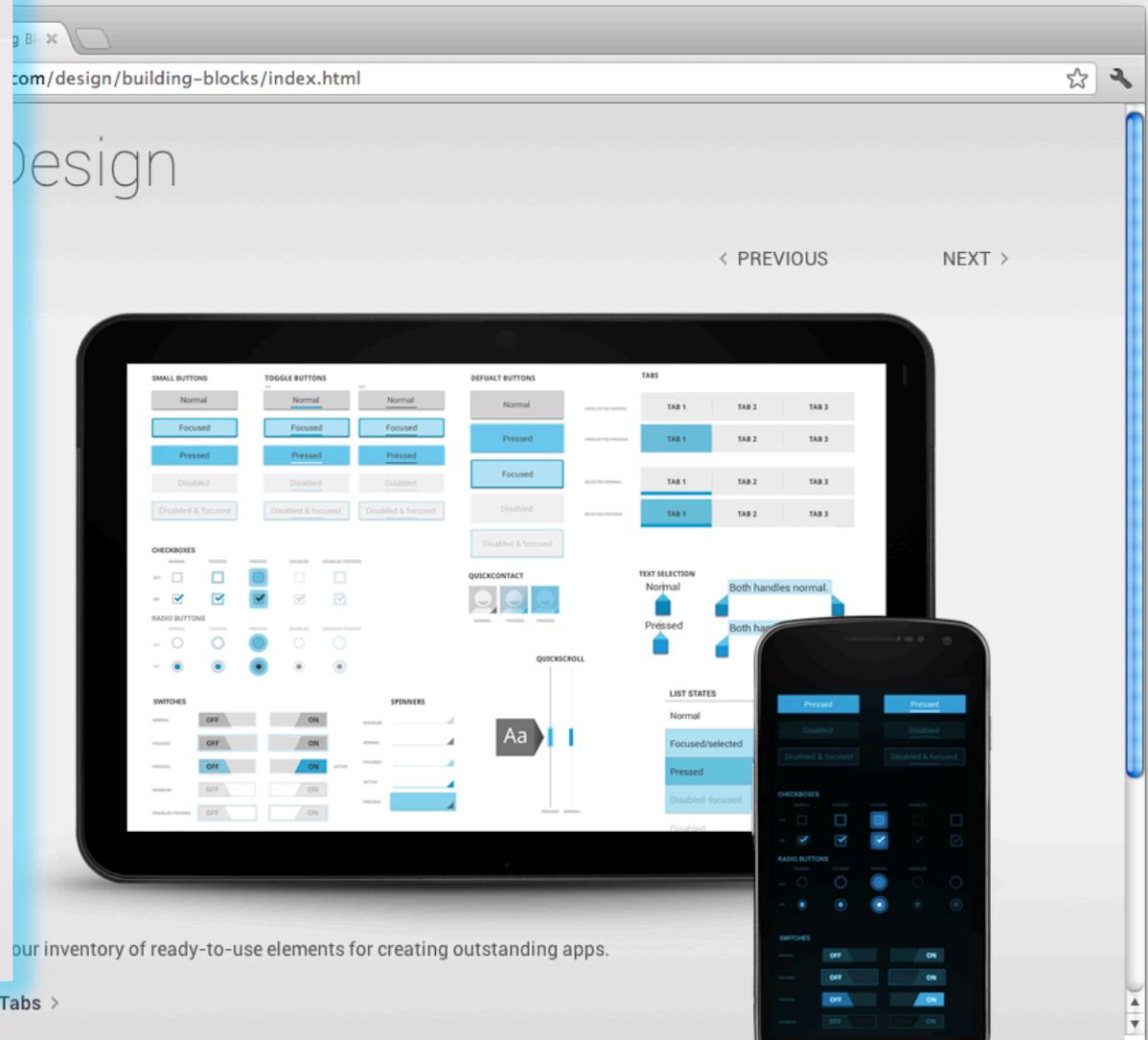
DEVELOPERS

Design apps that behave in a consistent, predictable fashion.

# Android Design / Building Blocks

- <http://developer.android.com/design/building-blocks/>

- BUILDING BLOCKS** ^
- Tabs
- Lists
- Grid Lists
- Scrolling
- Spinners
- Buttons
- Text Fields
- Seek Bars
- Progress & Activity
- Switches
- Dialogs
- Pickers



our inventory of ready-to-use elements for creating outstanding apps.

• Tabs >

# Android Design / Downloads

- <http://developer.android.com/design/downloads/>

The screenshot shows a web browser window with the URL `developer.android.com/design/downloads/index.html`. The page title is "Android Design". On the left, there is a navigation menu with categories: GET STARTED, STYLE, PATTERNS, BUILDING BLOCKS, DOWNLOADS (highlighted), and DEVELOPERS. The main content area is titled "Downloads" and includes a "Download All" button. Below this, there is a section for "Stencils and Sources" with a grid of icons and a list of download options: Adobe® Fireworks® PNG Stencil, Omni® OmniGraffle® Stencil, and Adobe® Photoshop® Sources. At the bottom, there is a section for "Action Bar Icon Pack" with a grid of icons and a "Action Bar Icon Pack" button.

Android Design

GET STARTED ▾

STYLE ▾

PATTERNS ▾

BUILDING BLOCKS ▾

**DOWNLOADS**

DEVELOPERS

**Downloads** < PREVIOUS

Want everything? We've bundled all the downloads available on Android Design into a single ZIP file. You can also download individual files listed below.

[Download All](#)

You may use these materials without restriction in your apps and to develop your apps.

**Stencils and Sources**

Drag and drop your way to beautifully designed Ice Cream Sandwich apps. The stencils feature the rich typography, colors, interactive controls, and icons found throughout Android 4.0, along with phone and tablet outlines to frame your creations. Source files for icons and controls are also available.

[Adobe® Fireworks® PNG Stencil](#)

[Omni® OmniGraffle® Stencil](#)

[Adobe® Photoshop® Sources](#)

OFF ON

**Action Bar Icon Pack**

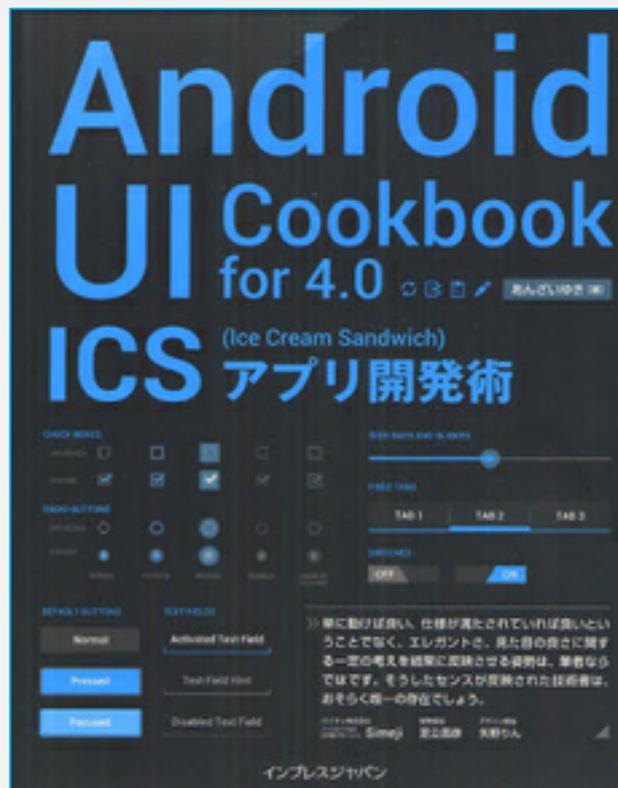
Action bar icons are graphic buttons that represent the most important actions people can take within your app. [More on Action Bar Iconography](#)

The download package includes icons that are scaled for various screen sizes.

[Action Bar Icon Pack](#)

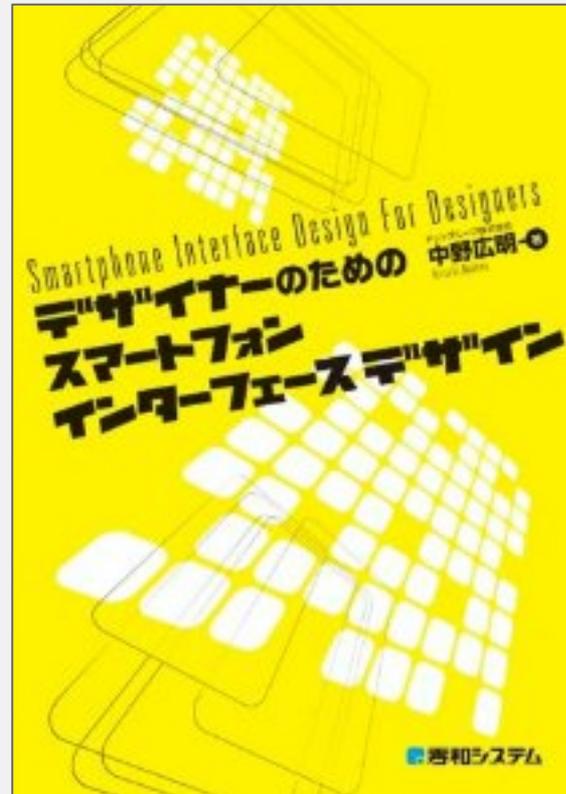
# 参考書籍

- Android UI Cookbook for 4.0 ICSアプリ開発術
- あんざいゆき／著
- インプレスジャパン



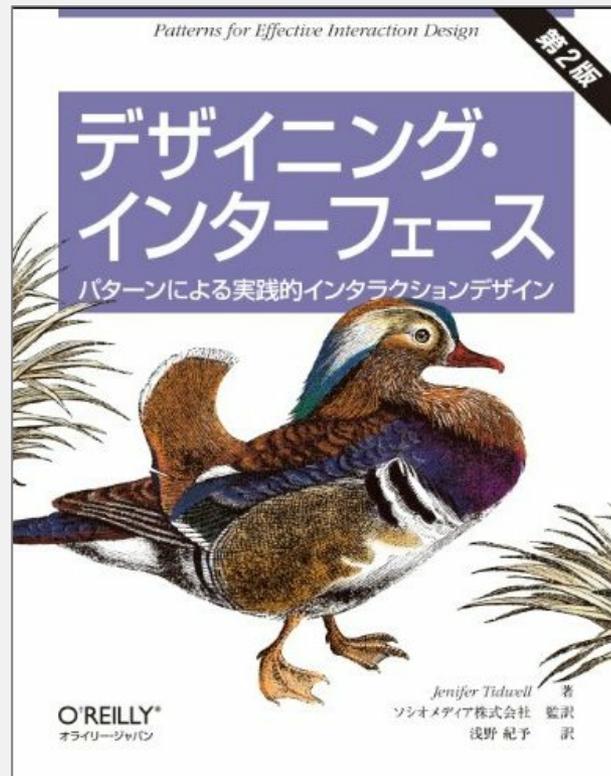
# 参考書籍

- デザイナーのためのスマートフォンインターフェースデザイン
- 中野広明（著）
- 秀和システム



# 参考書籍

- デザイニング・インターフェースデザイン パターンによる実践的インタラクションデザイン (第2版)
- Jenifer Tidwell (著) 浅野紀子・ソシオメディア (訳)
- オライリー・ジャパン



# Thank You

Nobuya Sato

Experience Designer

[nobsato@nobsato.com](mailto:nobsato@nobsato.com)

<http://about.me/nobsato>

<http://twitter.com/nobsato>

<http://slideshare.com/nobsato>