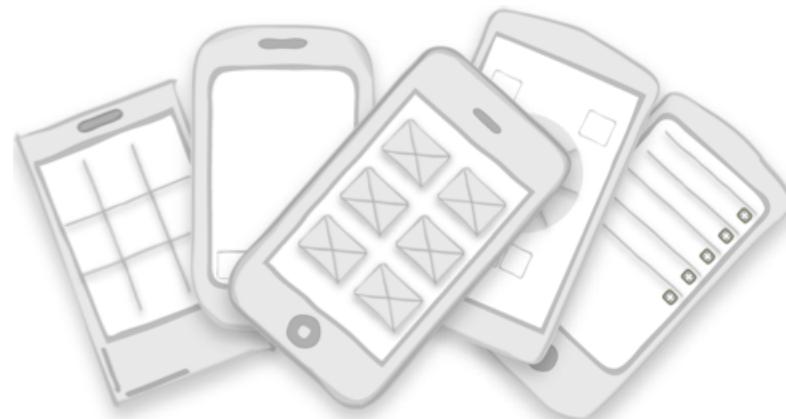
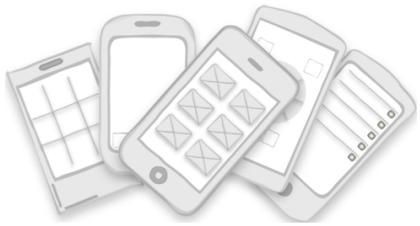
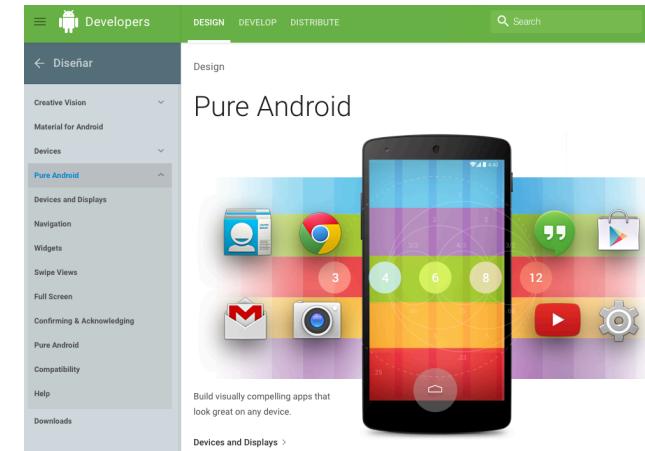

Seminario 5 – Diseño de App. en Android



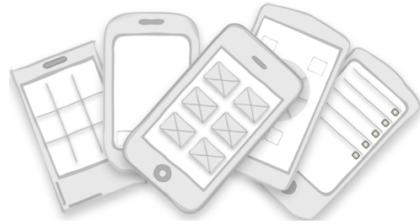


CONTENIDO

- ✗ Tipos de aplicaciones en Android.
- ✗ Estructura básica de una Aplicación.
- ✗ Guías de estilo y Patrones de Navegación.
- ✗ Elementos de Estructura y Navegación.



<https://developer.android.com/design/patterns/index.html>



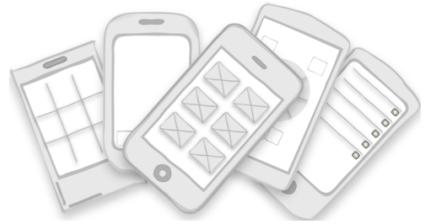
Diseño para móviles

Características de los móviles:

- Áreas de visualización propias y limitadas.
- Estilos de interacción y navegación específicos.
- Poca atención del usuario durante su uso.
- Optimización de aplicaciones y tareas.
- Usuario muy pendiente del esfuerzo y el tiempo.

Propiedades:

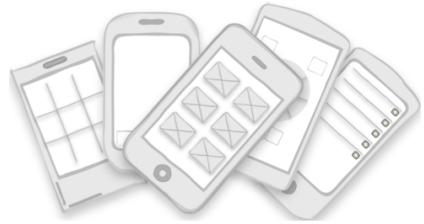
Especificas, Concisas, Efectivas y Atractivas



“Principios de Diseño” para Android

- ✗ Cautívame.
- ✗ Simplifica mi vida.
- ✗ Permíteme ser asombroso.

<https://developer.android.com/design/get-started/principles.html>



“Principios de Diseño” para Android

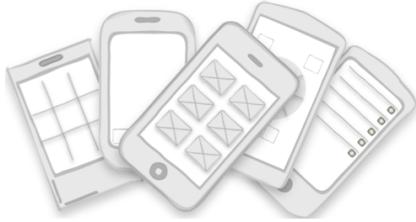
✗ Cautívame.

- Deléitame de formas sorprendentes.
- Los objetos reales son más divertidos que los botones y los menús.
- Permíteme darle un toque personal.
- Conóceme.

✗ Simplifica mi vida.

✗ Permíteme ser asombroso.

<https://developer.android.com/design/get-started/principles.html>



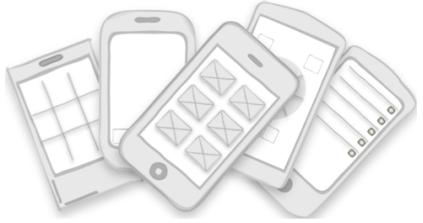
“Principios de Diseño” para Android

- ✖ Cautívame.
- ✖ Simplifica mi vida.
 - Sé breve.
 - Las imágenes son más prácticas que las palabras.
 - Decide por mí, pero permíteme tener la última palabra.
 - Solo muéstrame lo que necesito, cuando lo necesito.
 - Siempre debo saber dónde me encuentro.
 - Nunca pierdas lo que es mío.
 - Si se ve igual, debe funcionar de la misma manera.
 - Solo interrúmpeme si es importante.
- ✖ Permíteme ser asombroso.

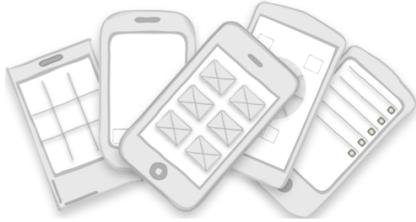


“Principios de Diseño” para Android

- ✖ Cautívame.
- ✖ Simplifica mi vida.
- ✖ Permíteme ser asombroso.
 - Ofrézcarme trucos que funcionen en todos. Lados.
 - No es mi culpa.
 - Fomenta lo simple.
 - Haz el trabajo pesado por mí.
 - Haz que lo importante sea rápido.

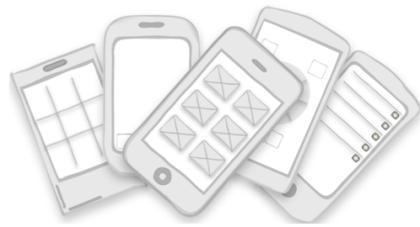


1 - Estructuras de Aplicaciones Móviles



Estructuras de aplicaciones móviles

1. Alrededor de una sola actividad que se maneja en una sola pantalla (calculadora)
2. Intercambiar entre varias funciones pero con una navegación lineal (no profunda) (teléfono, contactos, ...)
3. Aplicaciones con una jerarquía de navegación más o menos compleja y una estructura de datos también compleja (Gmail, ...)

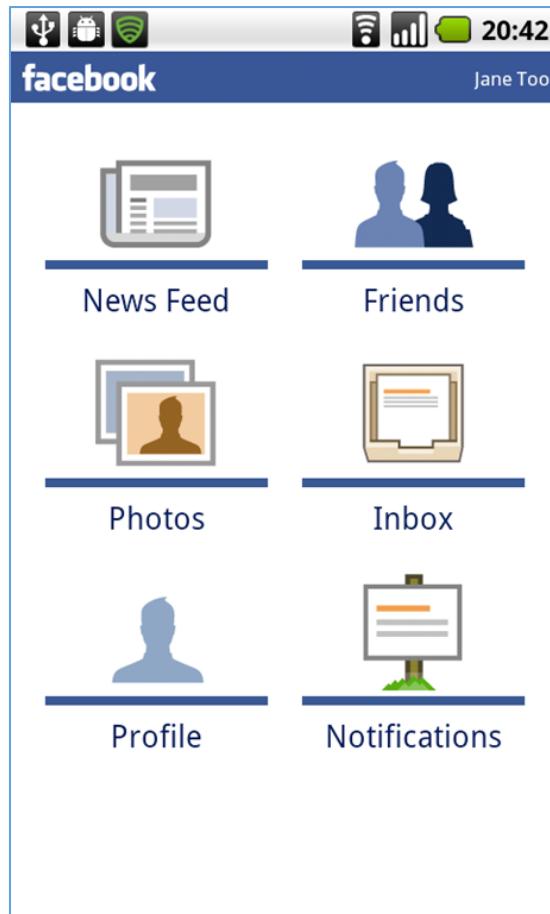


Tipos de Aplicaciones

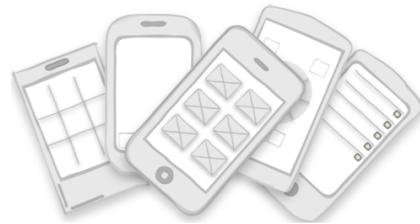
- × App. dirigidas por la navegacion. Navegar por una o más estructuras de navegación que nos llevan a los datos o a las funciones que queremos realizar.
- × App. dirigida por datos. Navegar por un conjunto de categorias de datos hacia el detalle de la informacion donde los datos pueden verse y manejarse (consultarse, editarse, borrarse, ...)



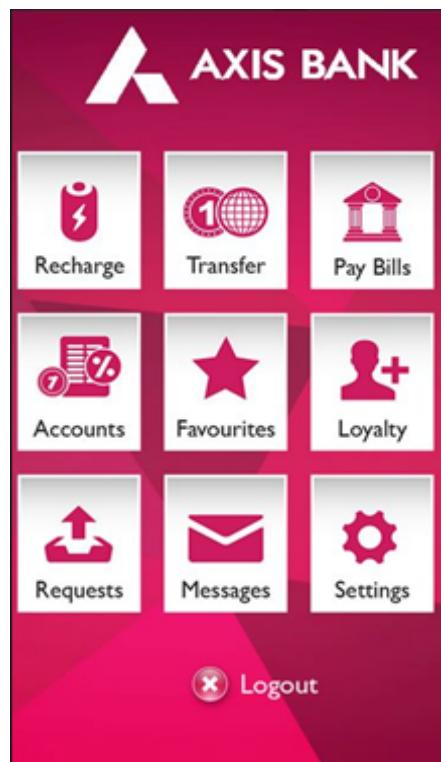
App dirigidas por la navegación. Menú inicial - (Springboard)



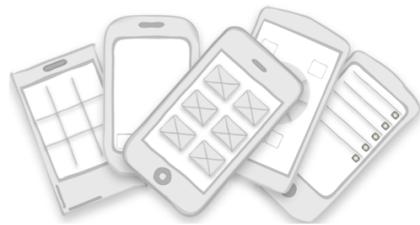
- Potente y simple.
- Visible en todo momento.
- Añadimos esfuerzo de navegación.
- No tenemos información de los datos.
- Cuando un usuario aprende la estructura de la App, el proceso de navegar se vuelve pesado e innecesario.
- No es accesible para los niveles mas bajos.



Ejemplos. Menú inicial

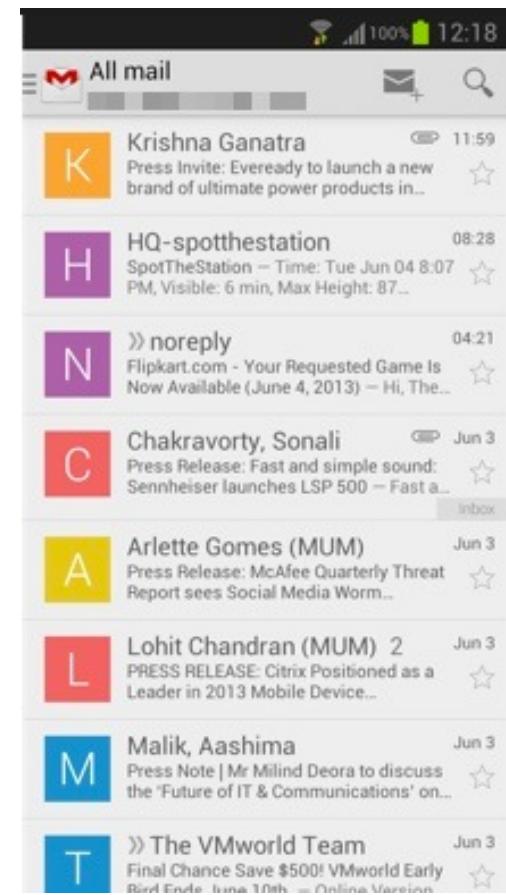


iOS ... TabBar



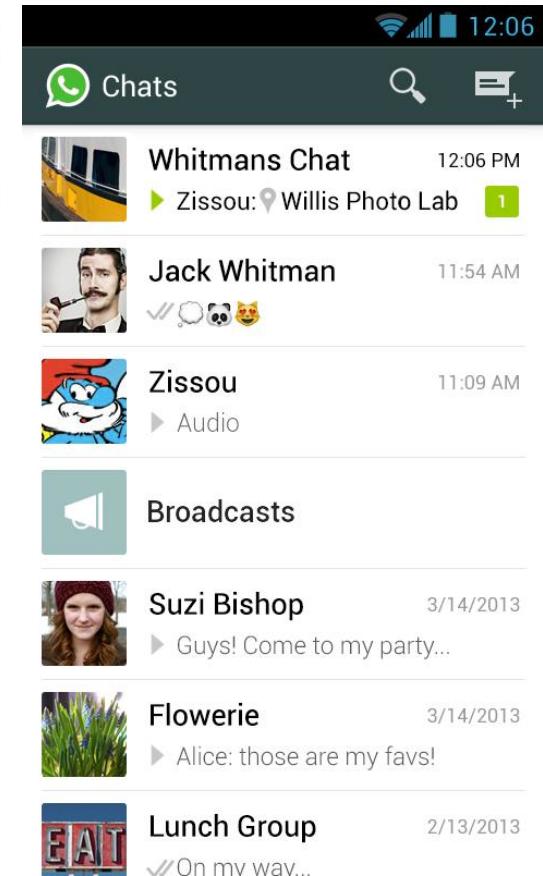
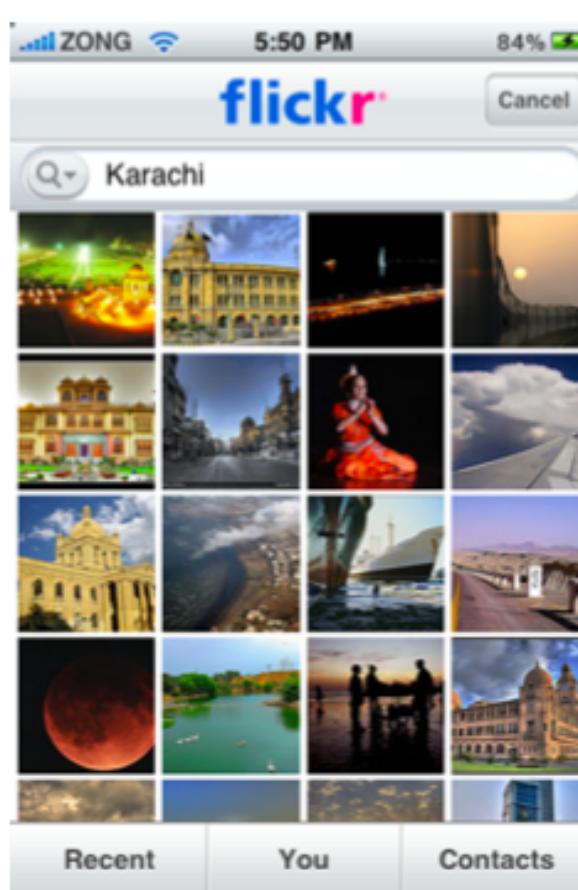
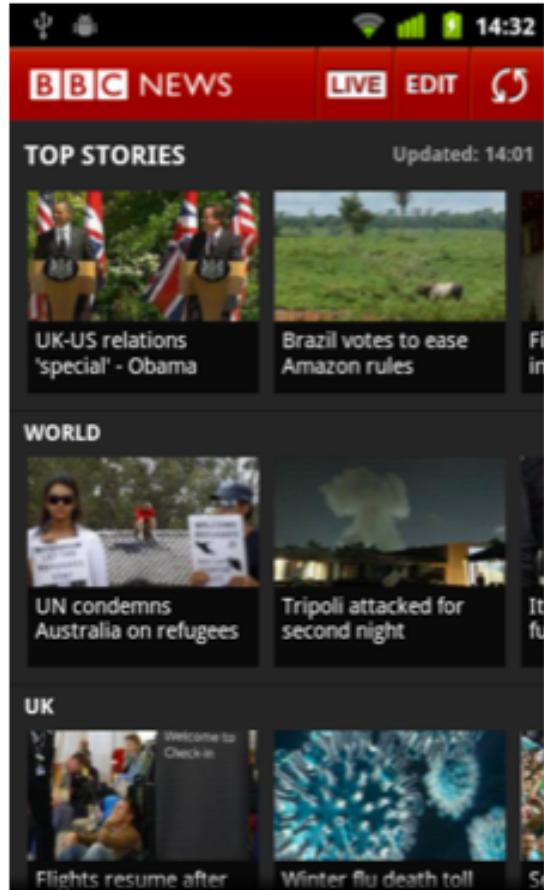
App dirigidas por los datos.

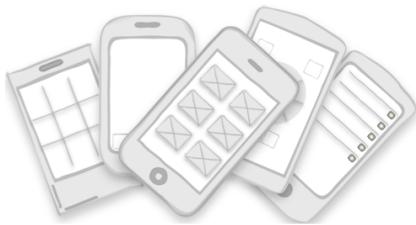
- ✗ Mostramos parte de los **datos** en la pantalla de inicio y las operaciones que se pueden realizar sobre ellos.
- ✗ Navegamos por la propia estructura de los **datos**.
- ✗ Realizamos **tareas** en contexto y sobre sus **datos**.
- ✗ Mas difícil de diseñar pero mas **rápida/directa** una vez se conoce la estructura.





App dirigidas por los datos.





Evolución ...

The image displays three separate screenshots of the HDFC Bank mobile application. Each screenshot shows a different section of the app:

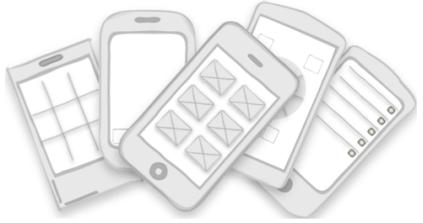
- Accounts:** Includes options like Account Summary, View Account Statement, Funds Transfer, Fixed Deposits Summary, and Recurring Deposits Summary.
- Third Party Transfer:** Includes options like Third Party Funds Transfer, NEFT Fund Transfer, View RTGS Funds Transfer, and View List of Beneficiaries.
- Credit Card:** Includes options like Account Summary, Account Information, Credit Card Payment, and View Unbilled Transactions.

At the bottom of each screenshot is a navigation bar with icons for Accounts, Fund Transfer, BillPay, Credit Card, and More.

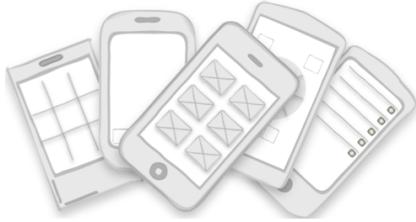
The image shows a screenshot of the Bank of America mobile application. The top navigation bar includes the Bank of America logo, a search bar, and links for Sign Out, Accounts, Deals, Alerts, Locations, and More. Below the navigation bar are buttons for Bill Pay, Transfers, and Deposits. The main content area displays a list of bank accounts with their names, account numbers, available balances, and links to view more details.

Account Type	Account Number	Available Balance
Personal Checking	1234	\$952.13
Regular Savings	4567	\$3,067.89
BankAmericard Visa	2500	\$390.52
Merrill Lynch Investment Account		
CMA	27438	\$2,100.27
Roth IRA	64732	\$10,150.11

Aplicaciones de Banco



2 - Estructuras de Aplicaciones en Android

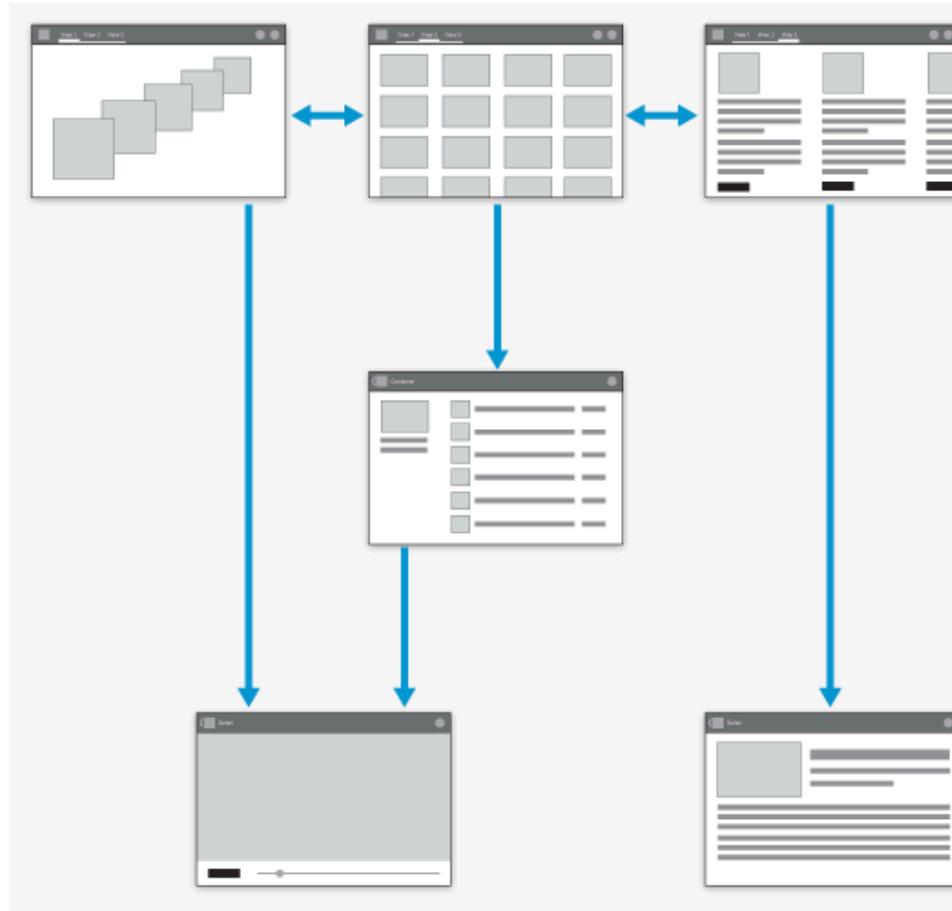


App. en Android

- × **Aplicación (App)**: es un Conjunto de actividades.
- × **Actividad (Activity)**: componente de una aplicación que define una pantalla de información y un conjunto de acciones que el usuario puede realizar con ellos. Presentación visual.
- × **Vista (View)**: Componentes de la IU. Forman el aspecto visual de la actividad y la interacción.
- × **Tarea**: Secuencia de actividades que el usuario puede seguir para alcanzar un objetivo.
- × **Intent**: Mecanismo para hacer que una App indique que necesita la ayuda de otra App para hacer una tarea (ejemplo ... mensajería entre App)



Estructura general de una APP dirigida por datos

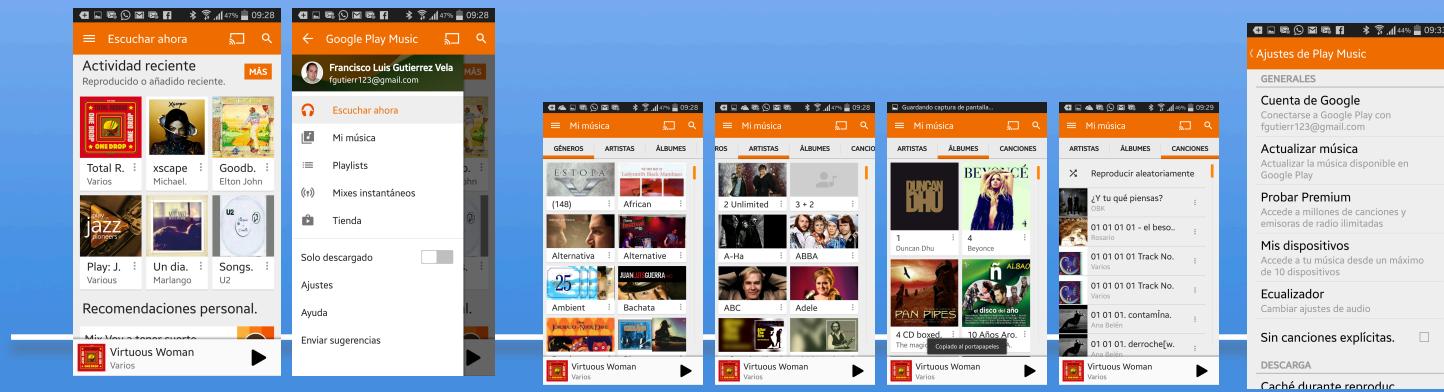


(1) Vistas de alto nivel

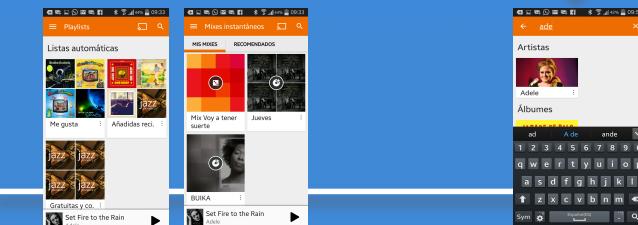
(2) Vistas de categoría

(3) Vistas de detalle/edición

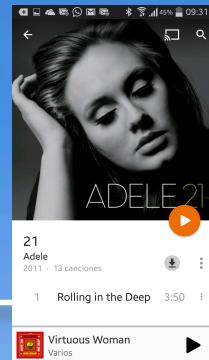
Vista Alto Nivel



Vistas Categorías



Vista Detalle

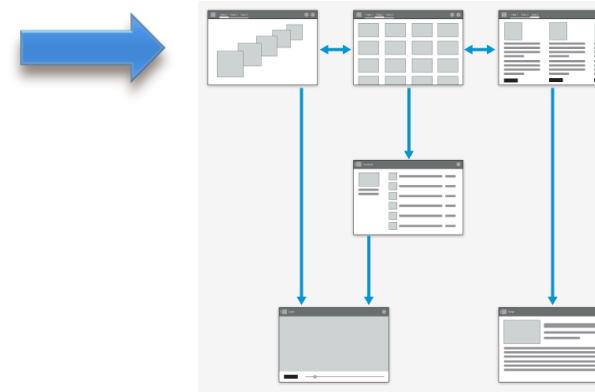


Ejemplo de estructura de
Una App. dirigida por datos



Estructura de una App en Android

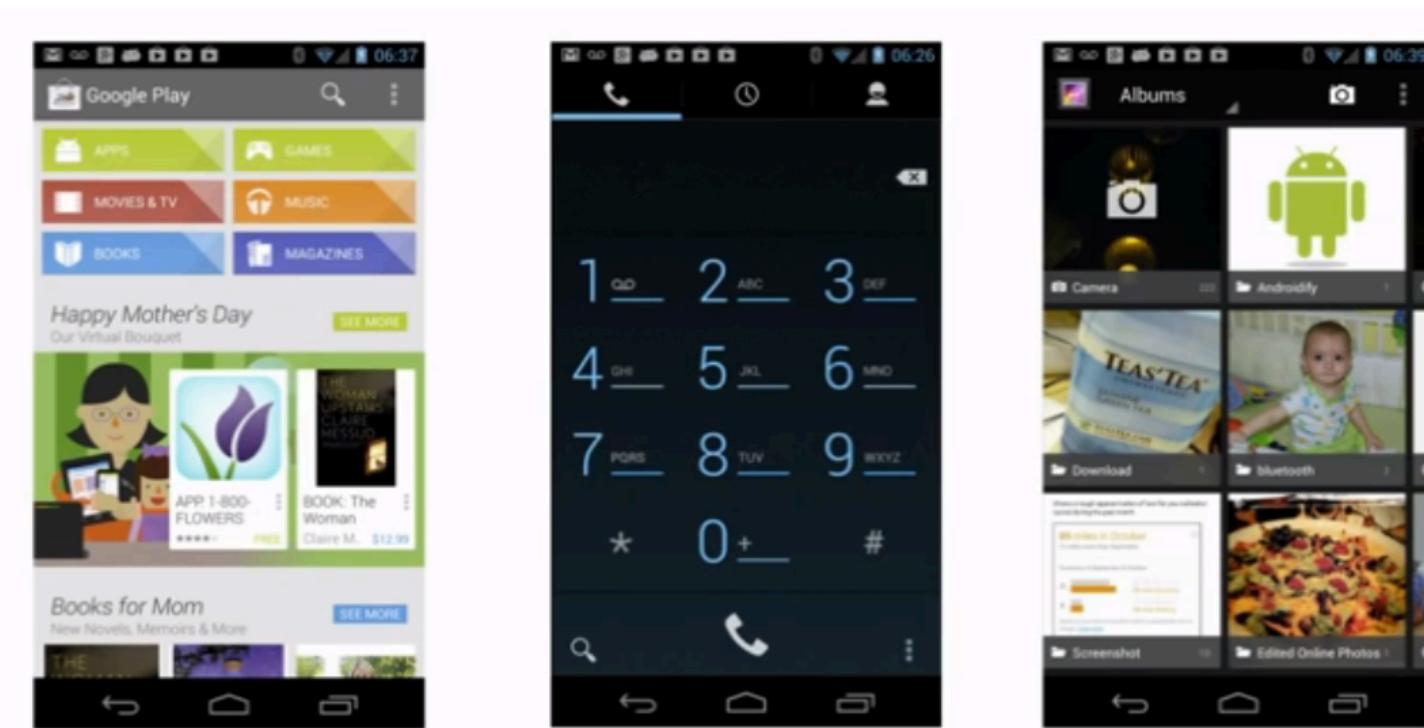
2.1 - Vistas de alto nivel





(2.1) Vistas de alto nivel

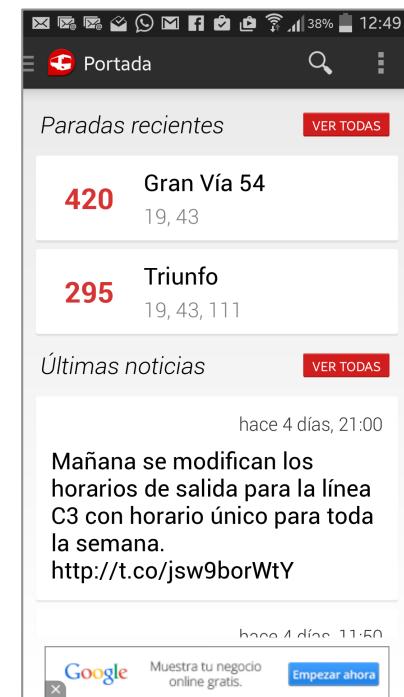
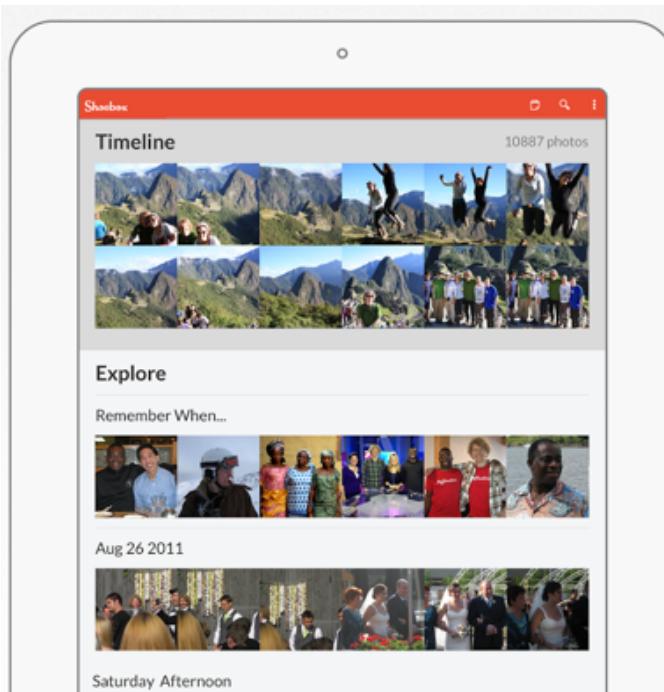
- Mostrar al usuario las **áreas principales** de nuestra App y estructuras para **navegar** por ellas.
- Funcionalidad principal e **identidad** de la aplicación.

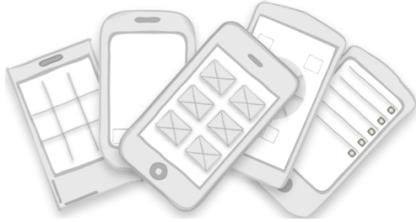




(2.1) Vistas de alto nivel

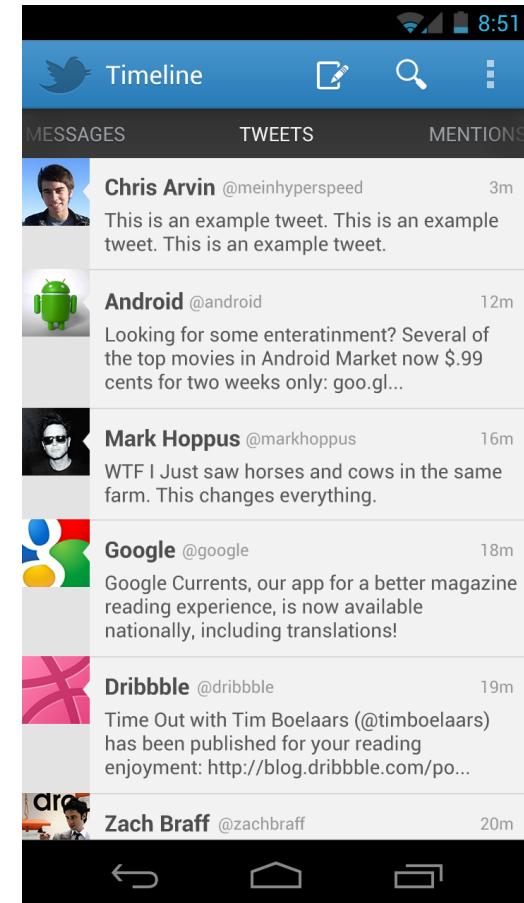
- Mostar la información más “relevante” de la jerarquía de información.

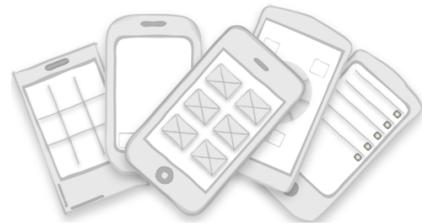




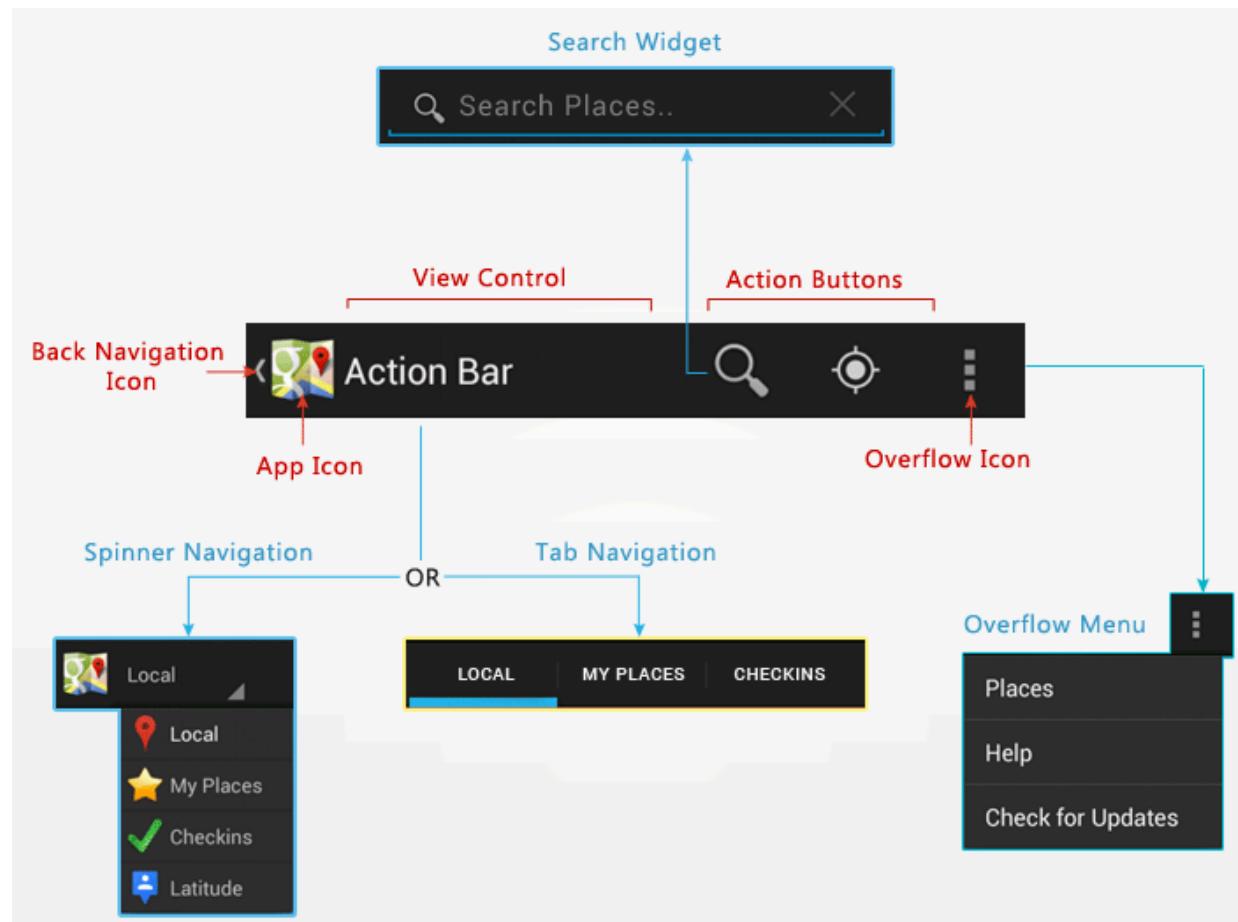
La Barra de Acción (ActionBar)

- ✗ Crear una **navegación** consistente y acceso a las **funciones importantes**.
- ✗ **Persiste** en la App. entre pantallas.
- ✗ Mostrar **información** de (nombre de la app, ícono, lugar de la jerarquía de menús, ...). Dar **identidad a la App**.
- ✗ Poseen **controles de navegación** para movernos entre diferentes vistas (múltiples vistas)
- ✗ Enlaces a **acciones importantes** como (buscar información, añadir nueva, configuracion ...)



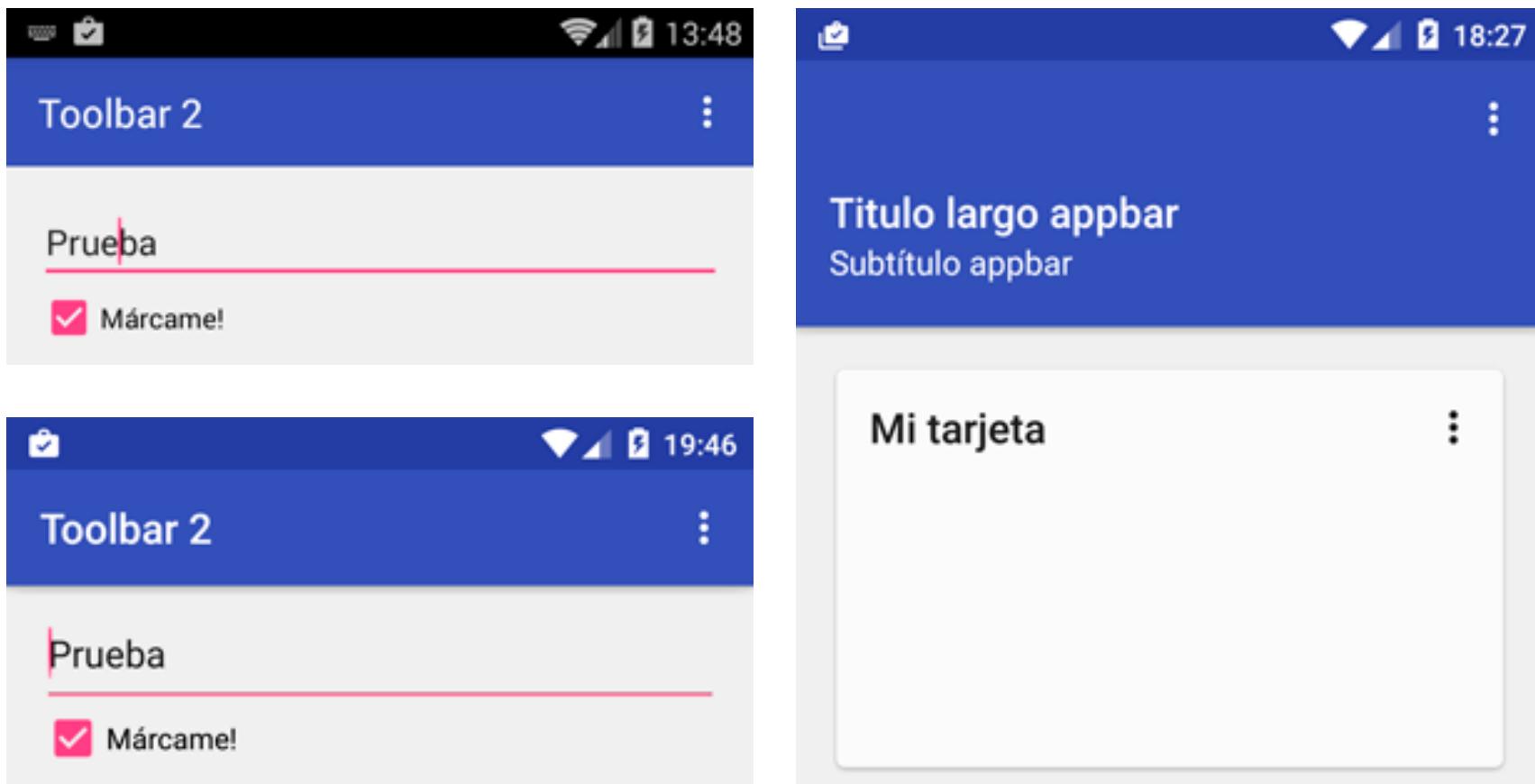


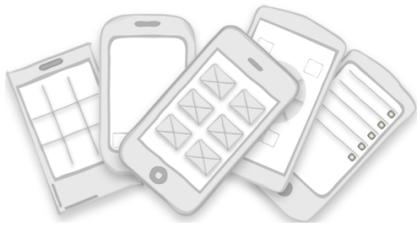
La barra de acción (ActionBar)



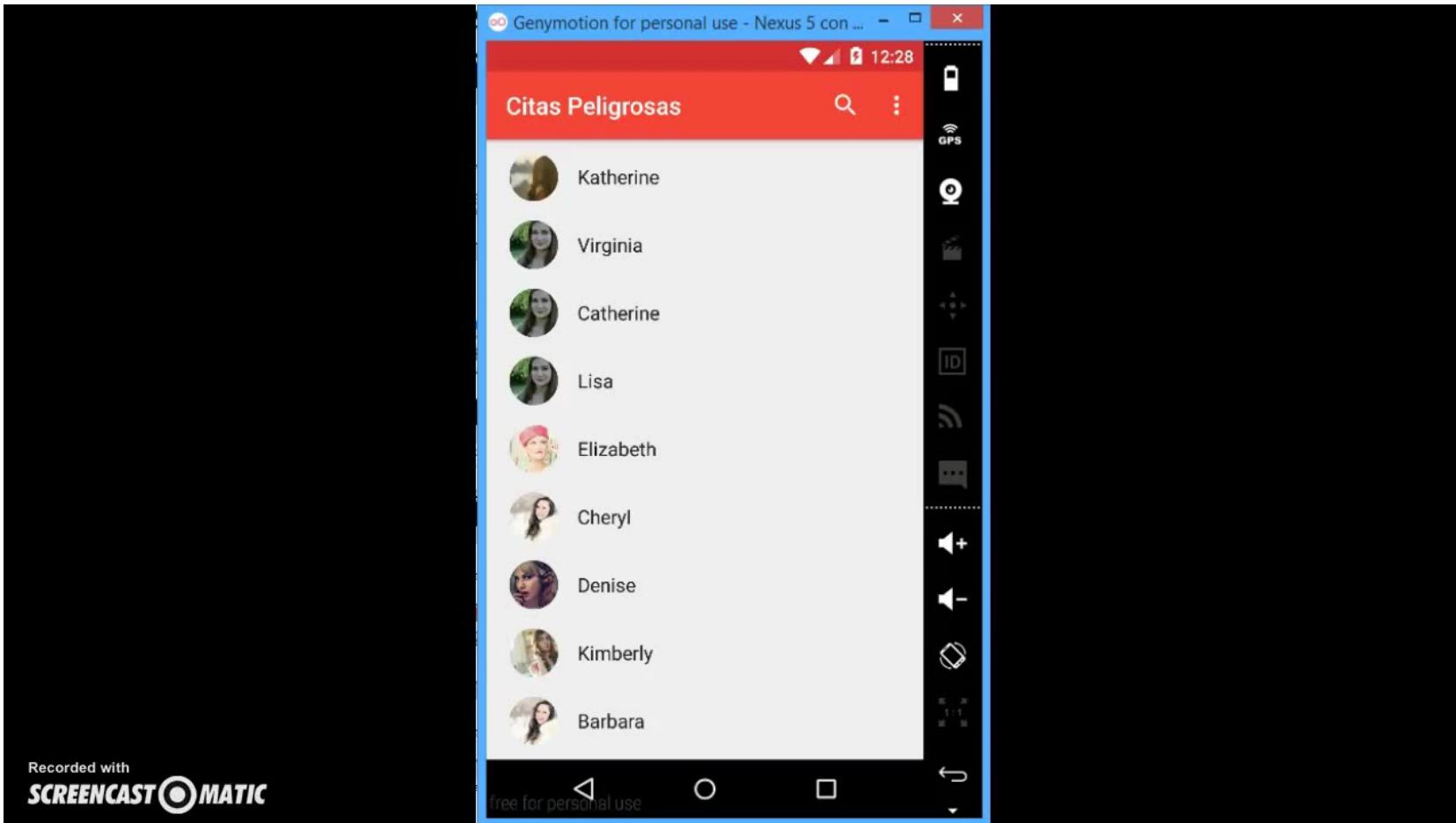


La barra de acción ActionBar – App Bar (MD)

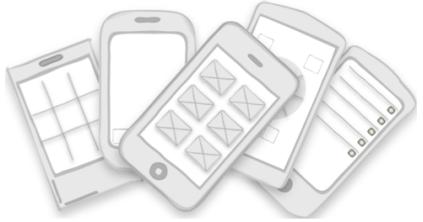




La barra de acción ActionBar – App Bar (MD)

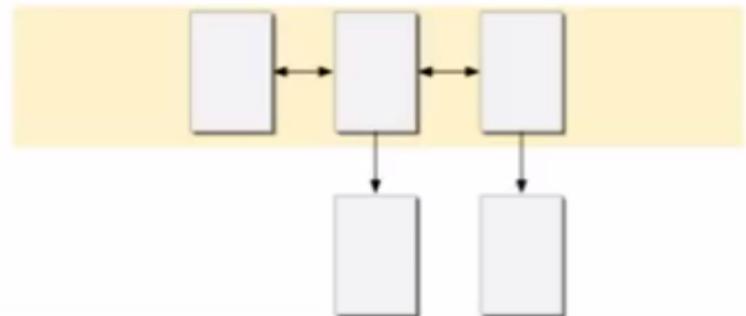
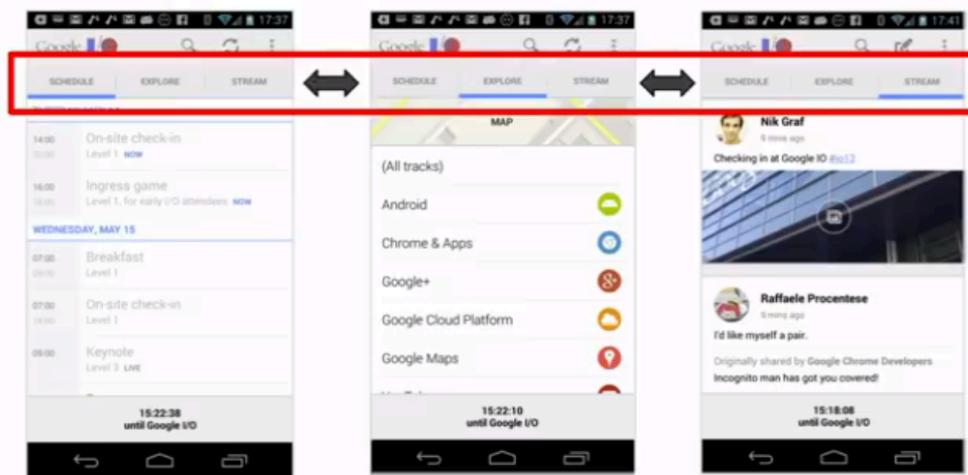


<https://www.youtube.com/watch?v=H7HoyaJJxKk>



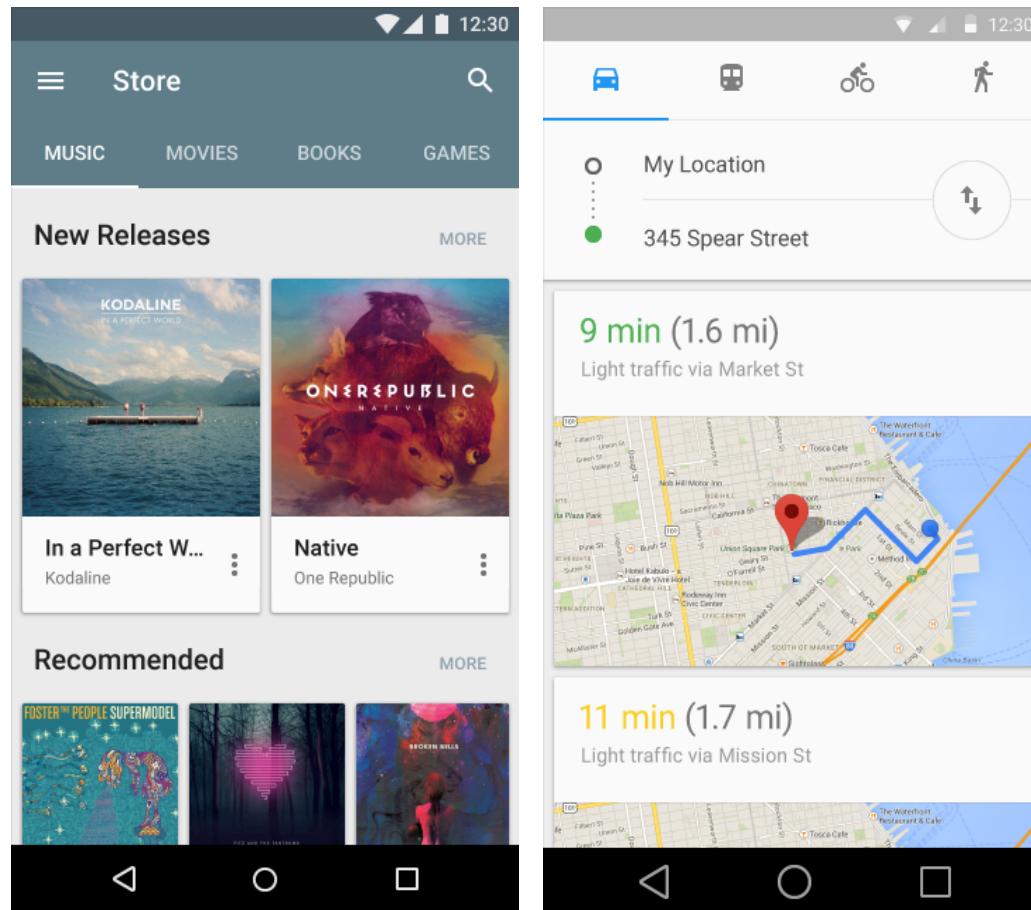
Navegación por pestañas. Fixed Tabs

- × Movernos por un número pequeño de vistas de igual importancia y de una forma rápida (side swipe). **Agrupar contenido similar.**

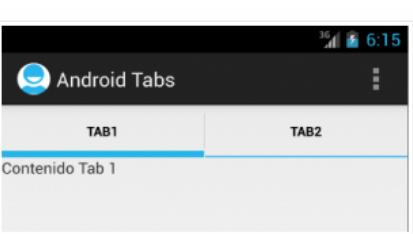
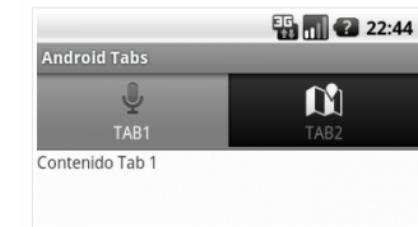




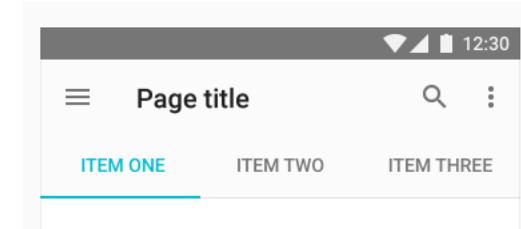
Ejemplo. Fixed Tabs



Android 2.x



Android 4.x

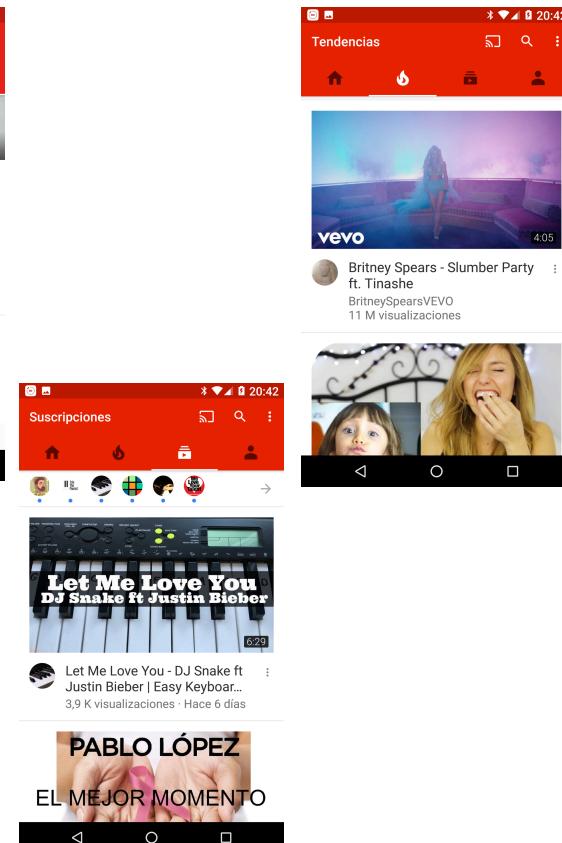
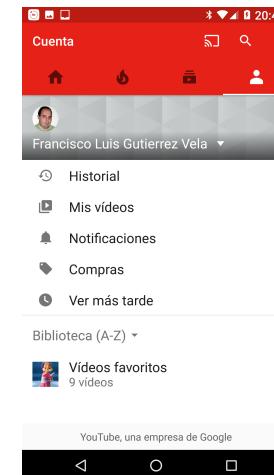
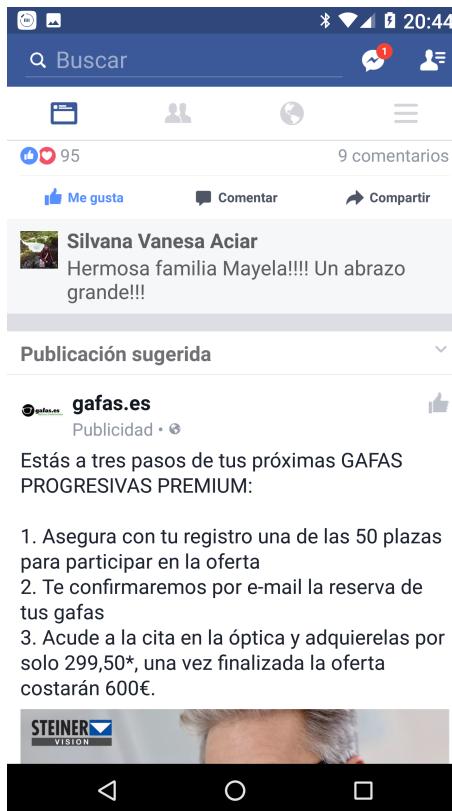


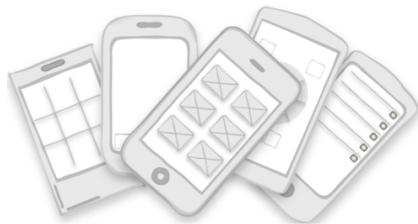
Android 5.0 - MD



Ejemplo. Fixed Tabs

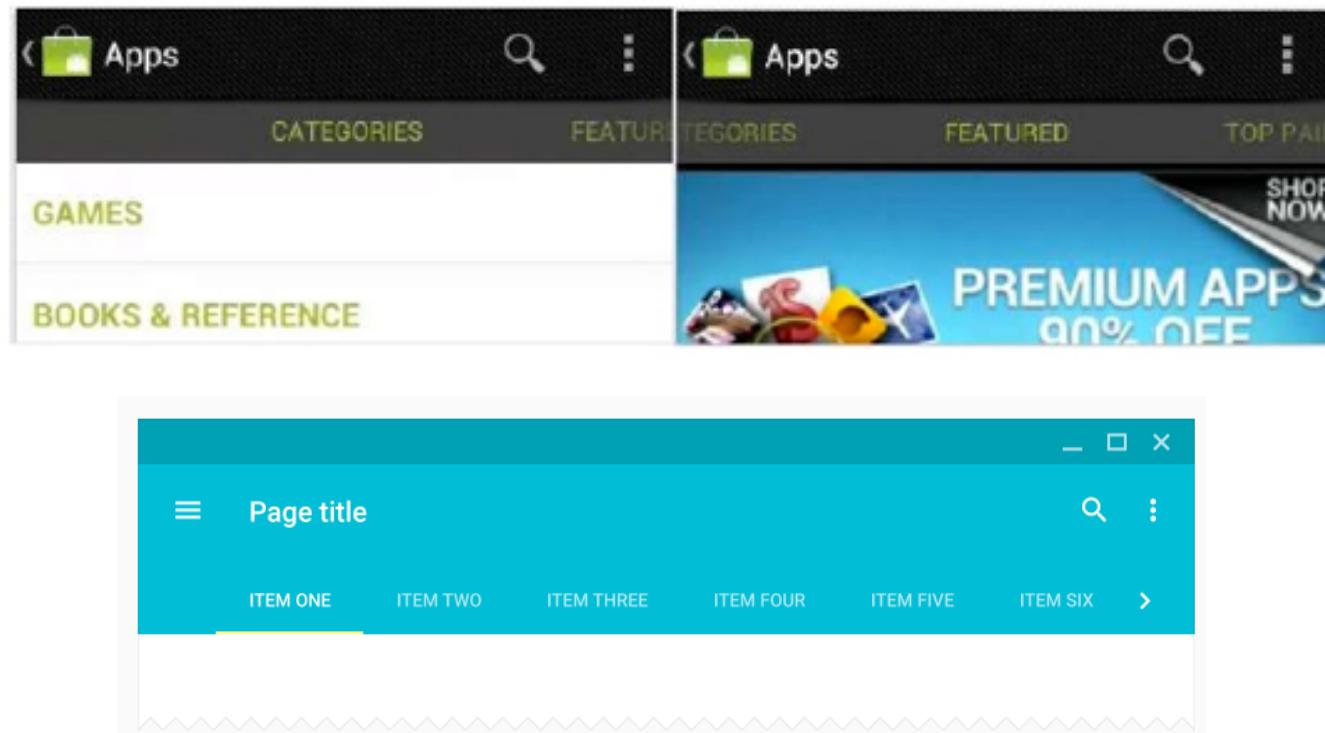
✗ Usado como una barra de herramientas.

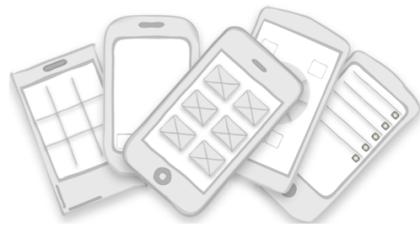




Scrollable Tabs

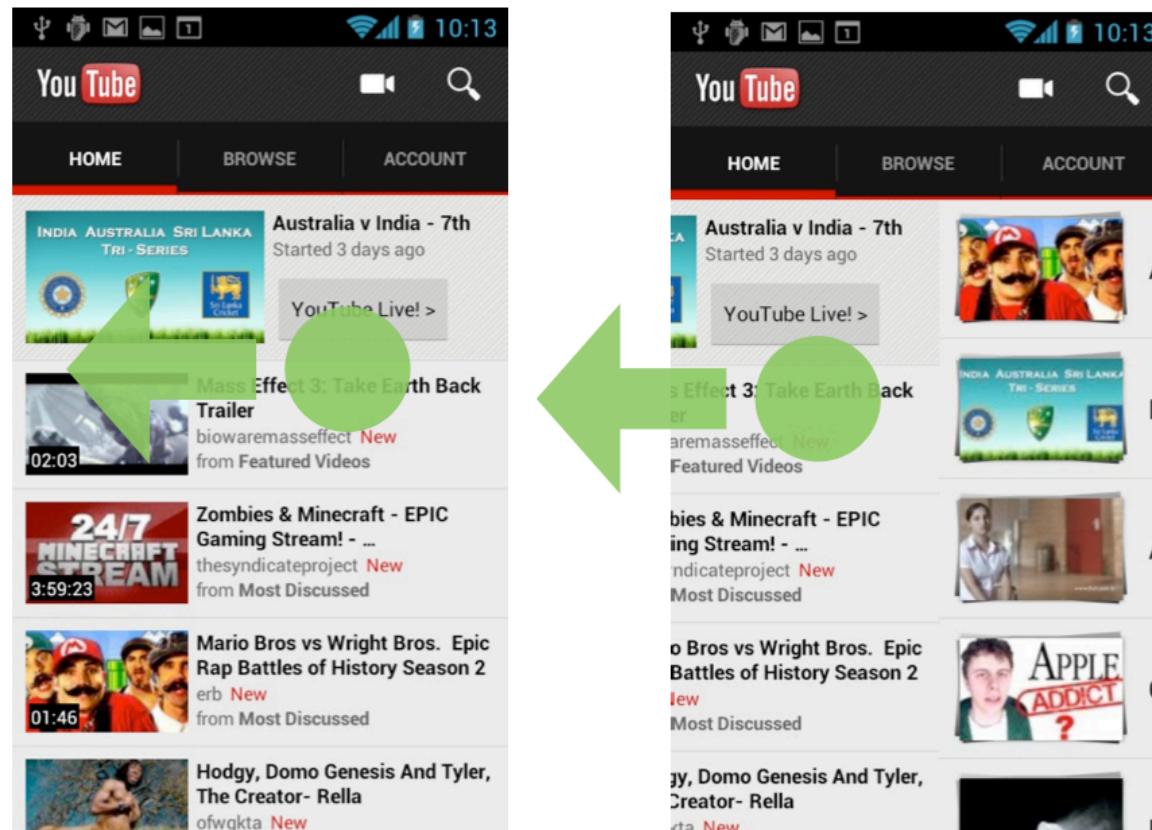
- Numero de pestañas **mayor** que el que cabe en pantalla. Movimiento por deslizamiento.

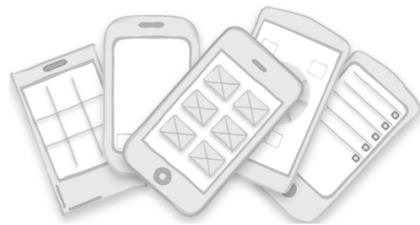




Fixed Tabs (no scrollable)

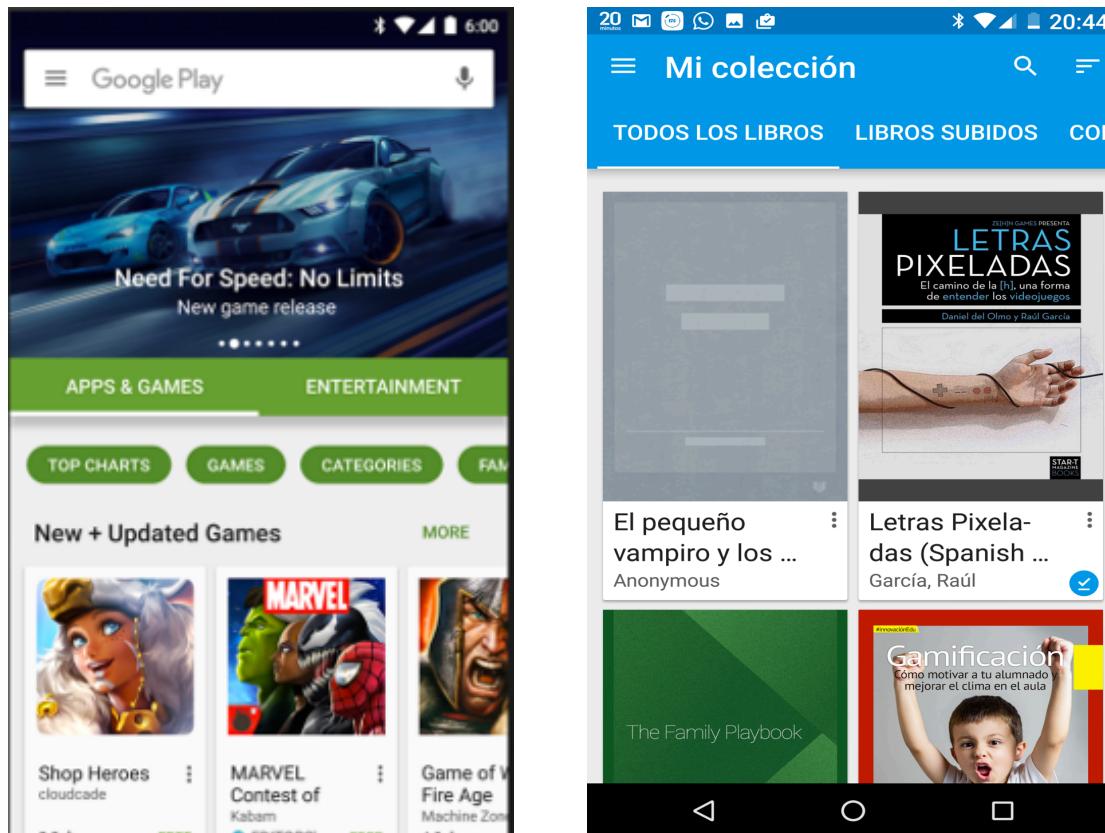
- ✗ Problema del doble desplazamiento.

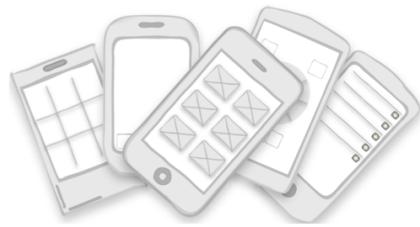




Fixed Tabs (no scrollable)

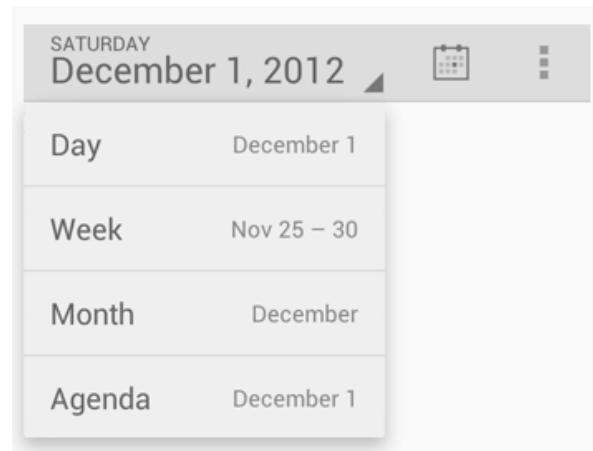
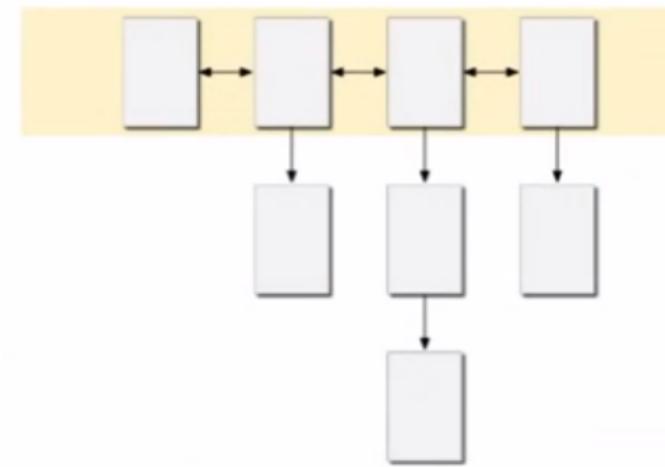
- ✗ Problema del doble desplazamiento.





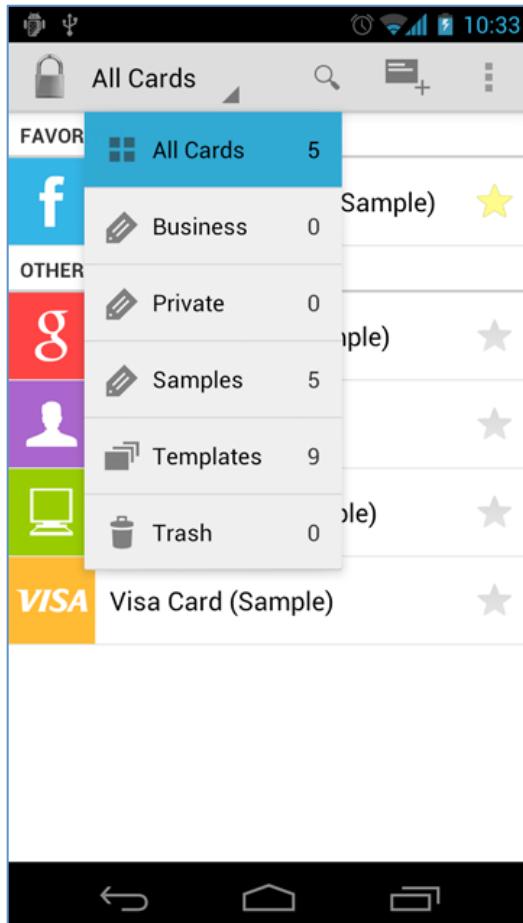
Navegación por Menú desplegable (Spinners)

- ✗ Menú desplegable para cambiar entre vistas de la misma información (“Page Filter”)
- ✗ Cambiamos entre vistas del mismo conjunto de datos o diferentes formas de estructurar los datos.
- ✗ Ocupa menos espacio.

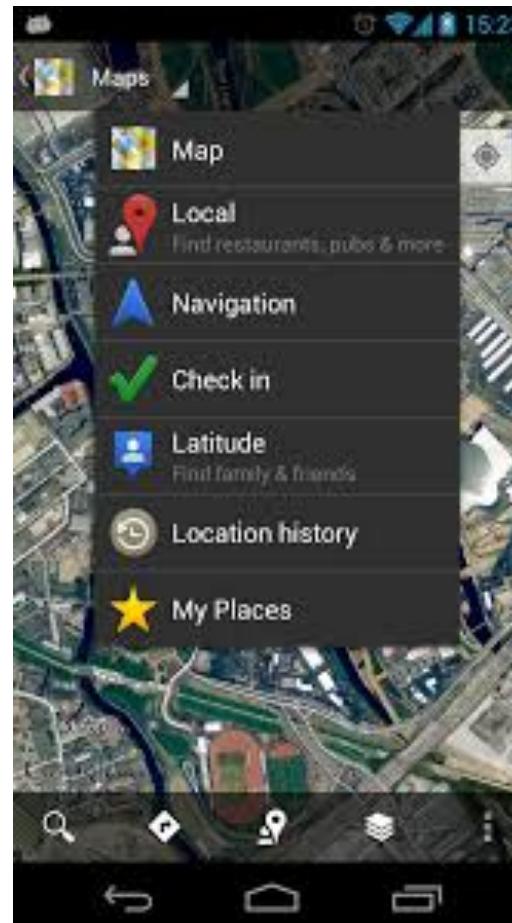




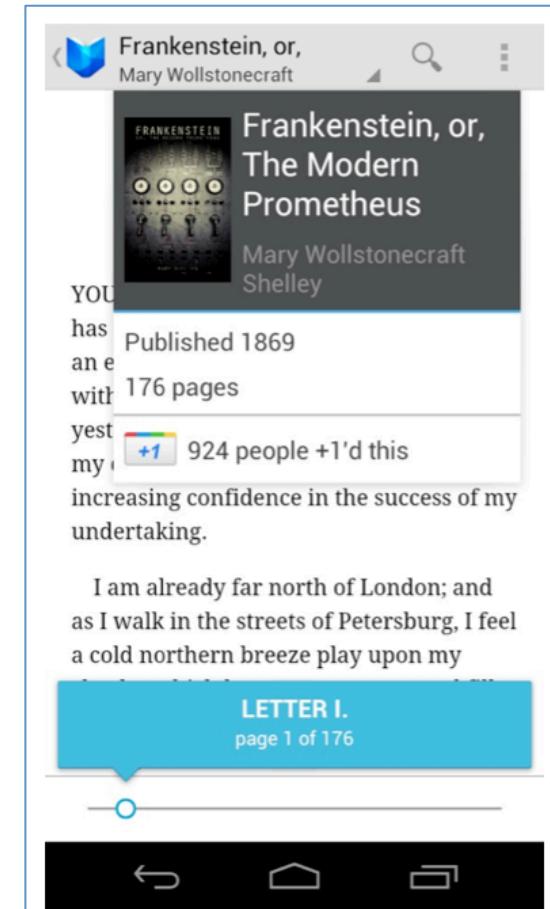
Uso de Spinners



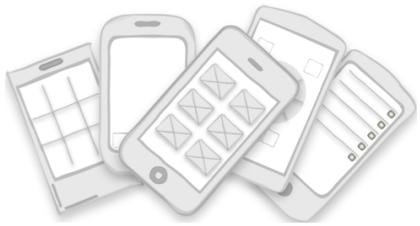
Diferentes vistas



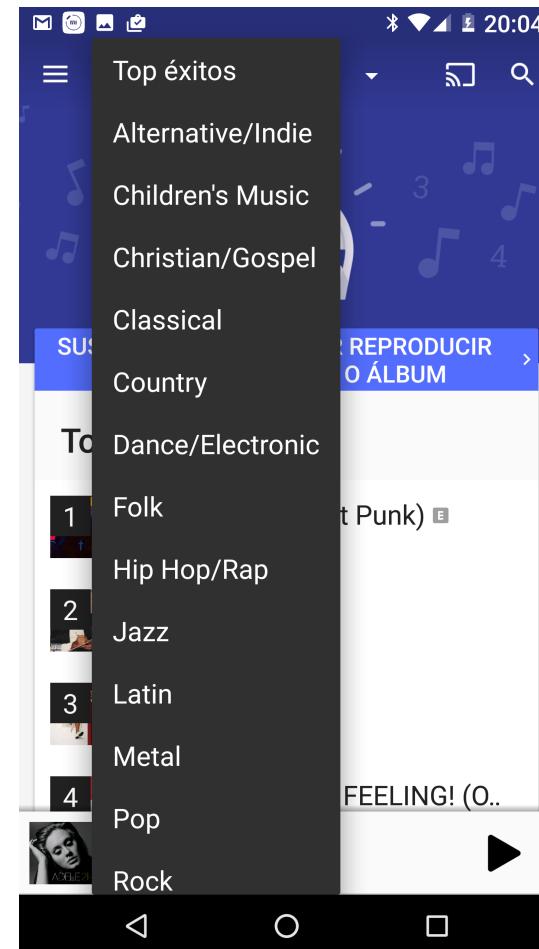
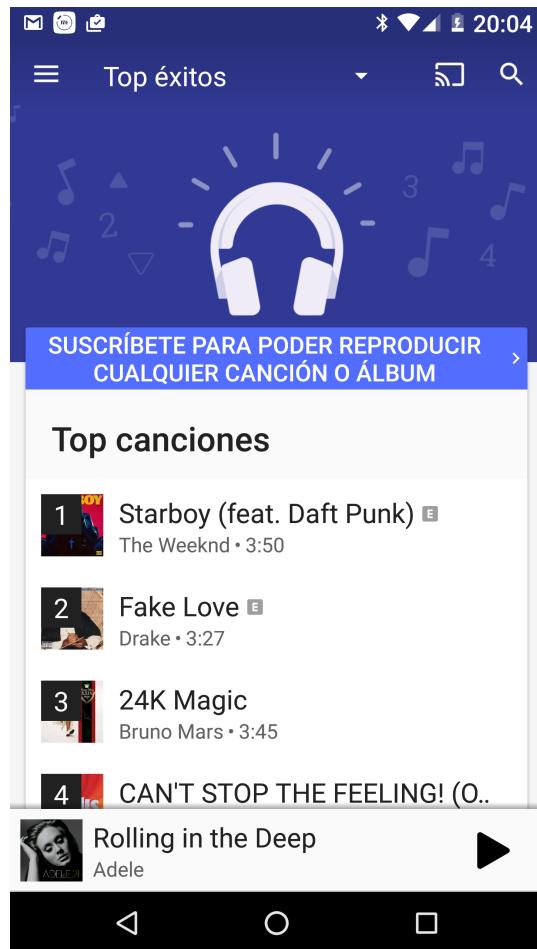
Funciones



Ampliar información



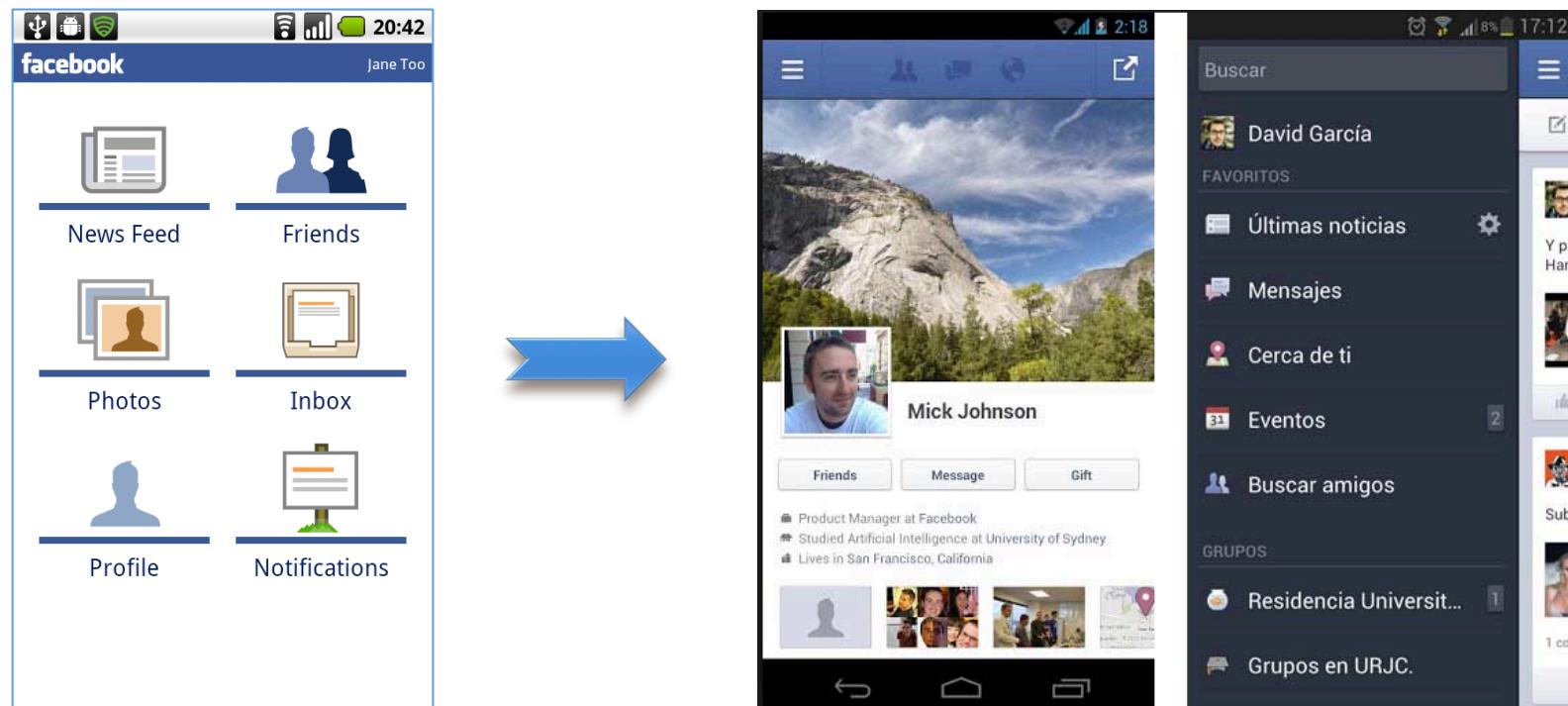
Uso de Spinners

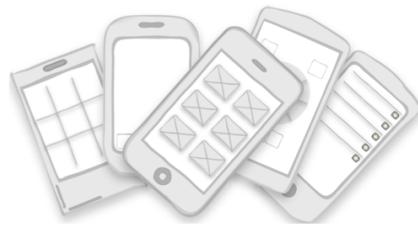




Navigation Drawer (Navigation View)

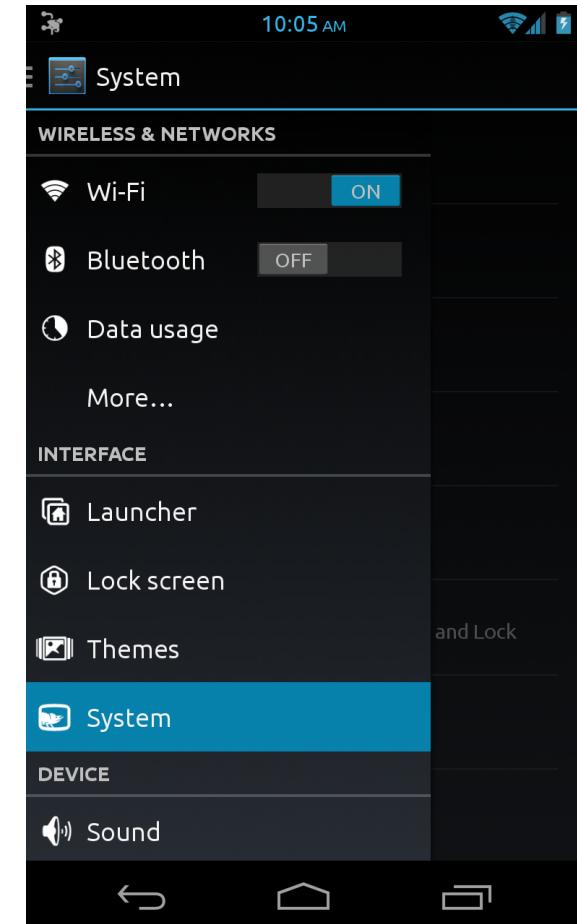
- Menú de navegación vertical “ocultable”.

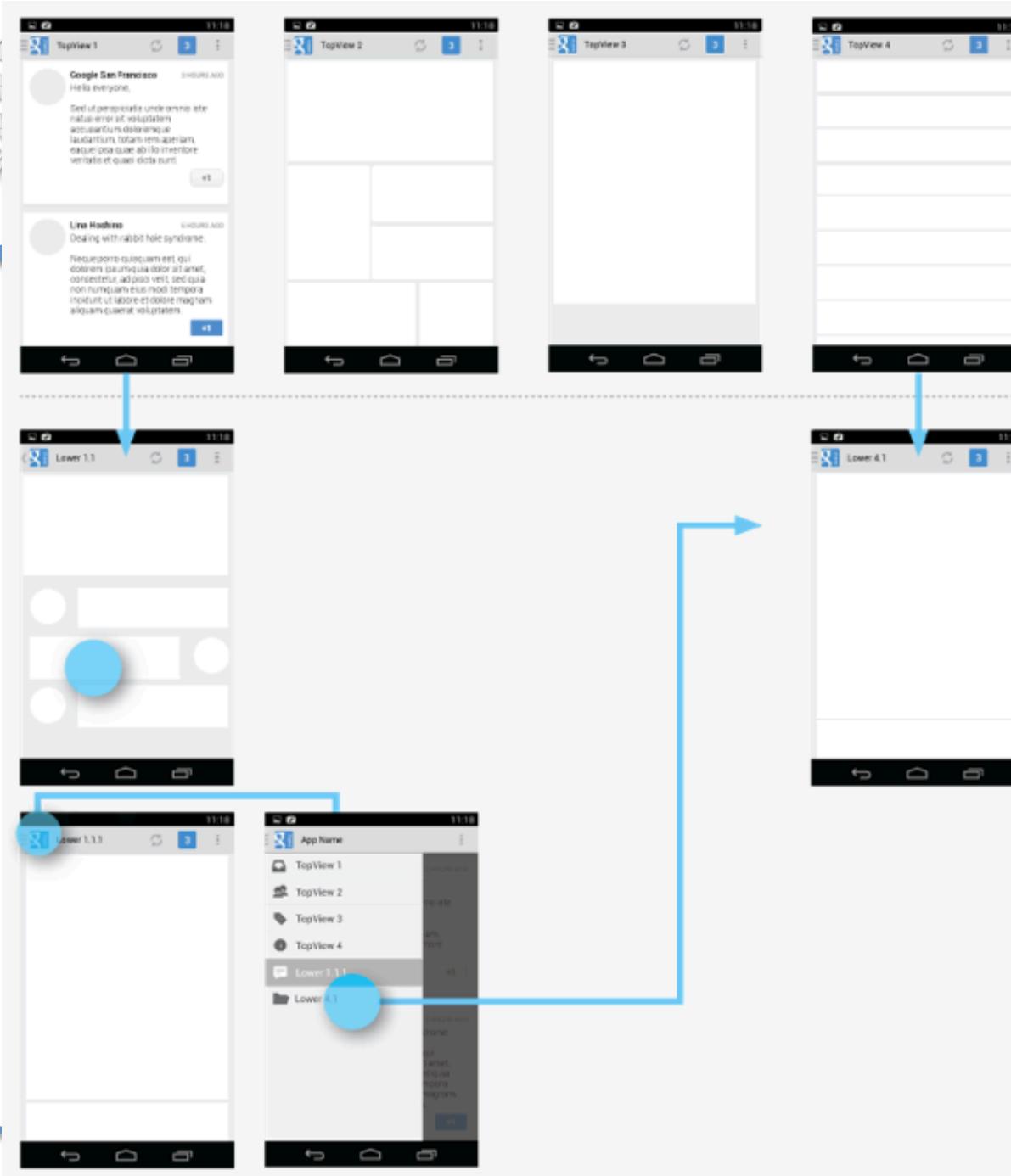


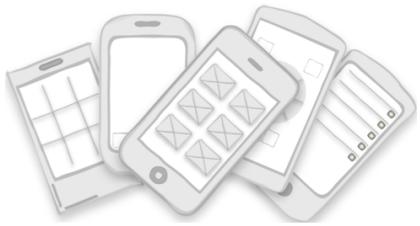


Navigation Drawer

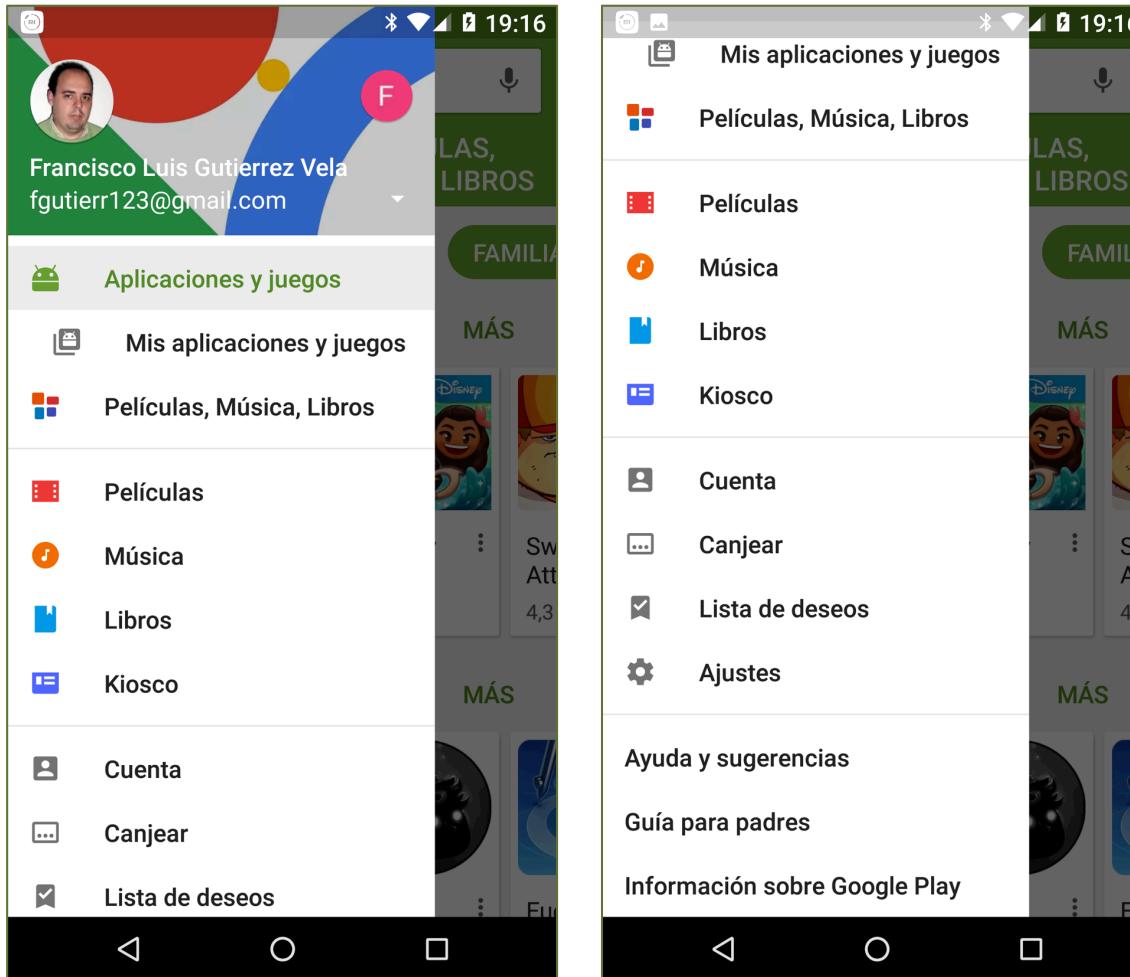
- ✖ No ocupa espacio en pantalla.
- ✖ Tenemos una gran número de vistas de alto nivel.
- ✖ Proporcionar acceso directo a **vistas de bajo nivel**.
- ✖ Acceso rápido a vistas sin relación entre si.
- ✖ Tenemos una jerarquía de navegación profunda.

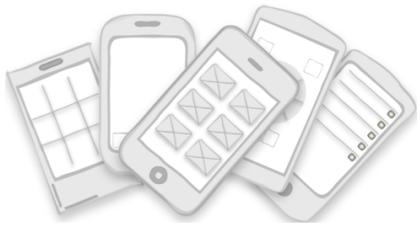






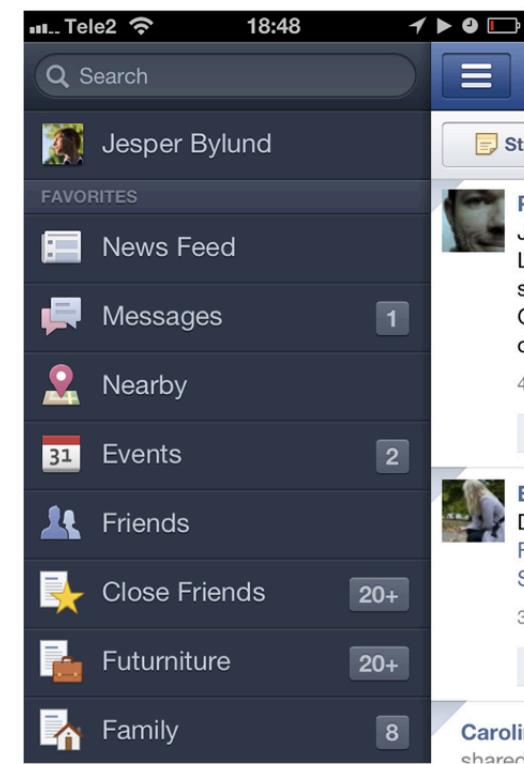
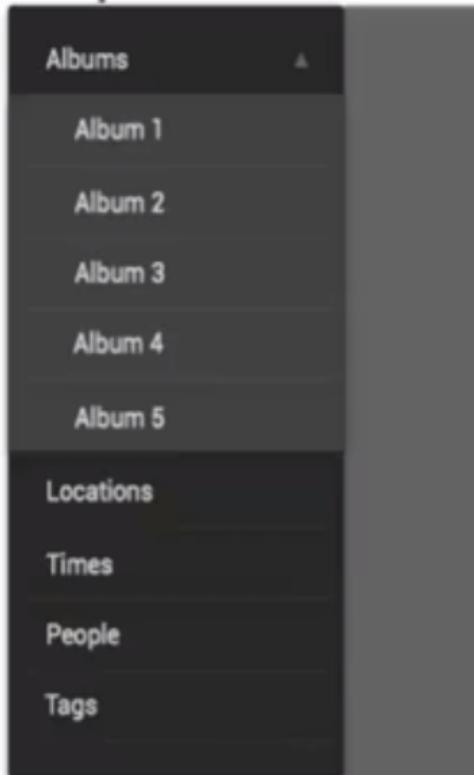
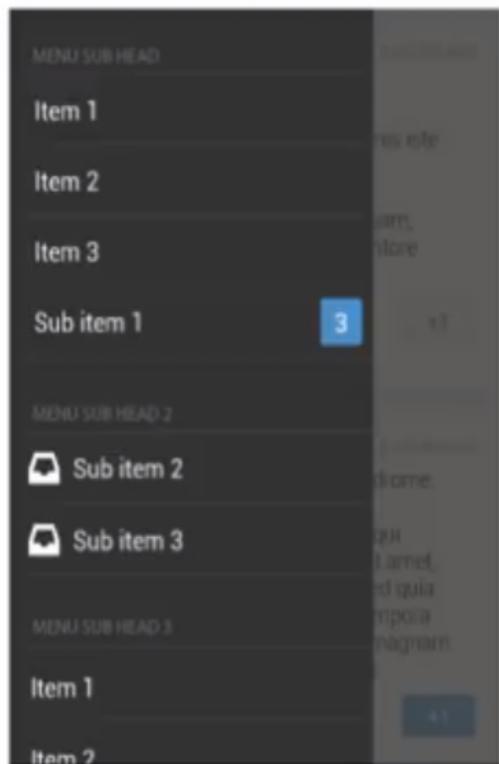
Navigation Drawer

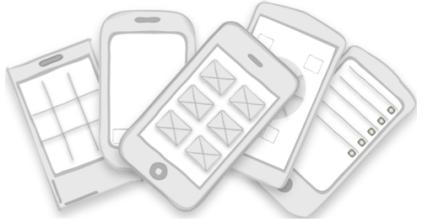




Navigation Drawer Menú de Navegación

- ✗ Podemos añadir iconos, divisores, contadores, elementos desplegables, ...

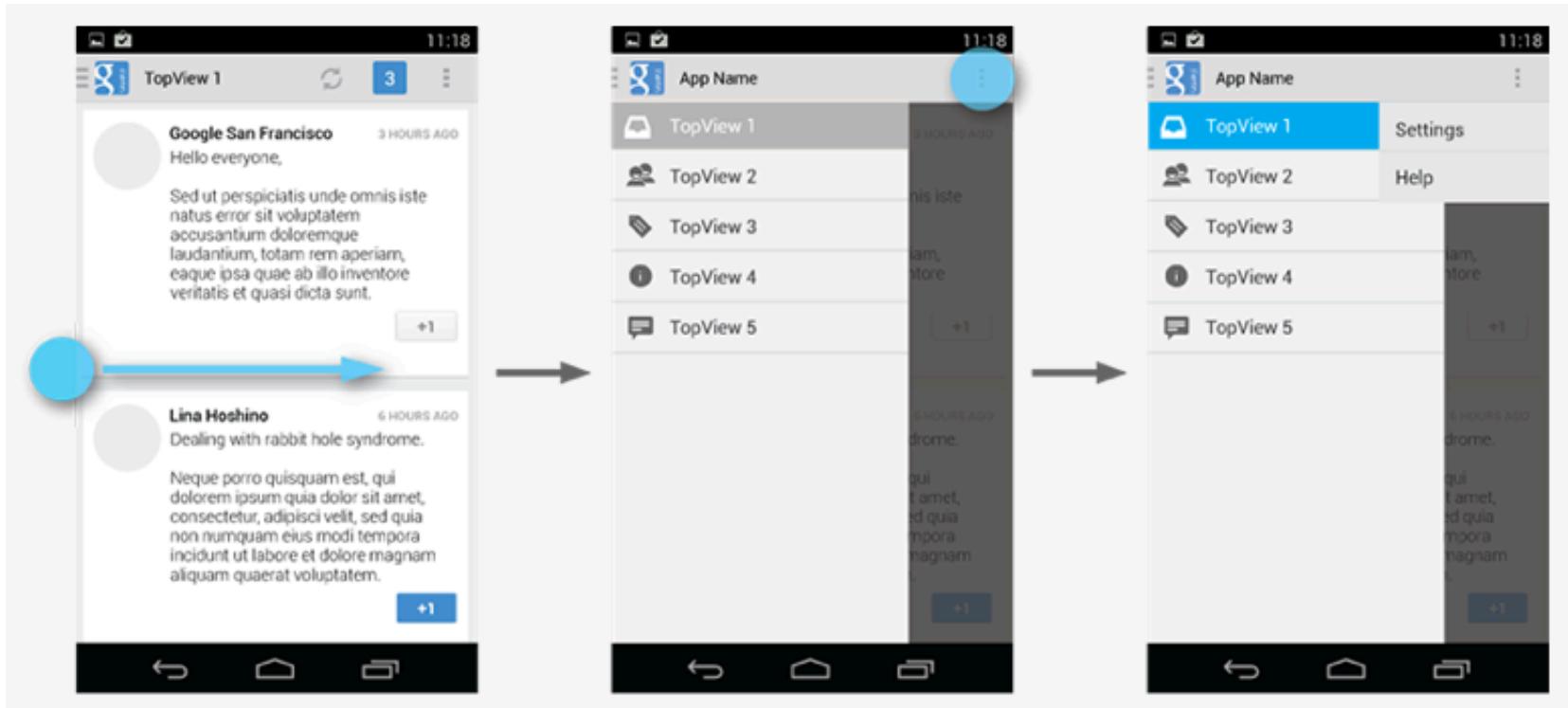


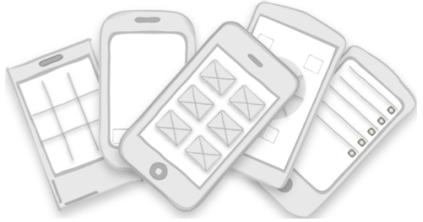


Navigation Drawer

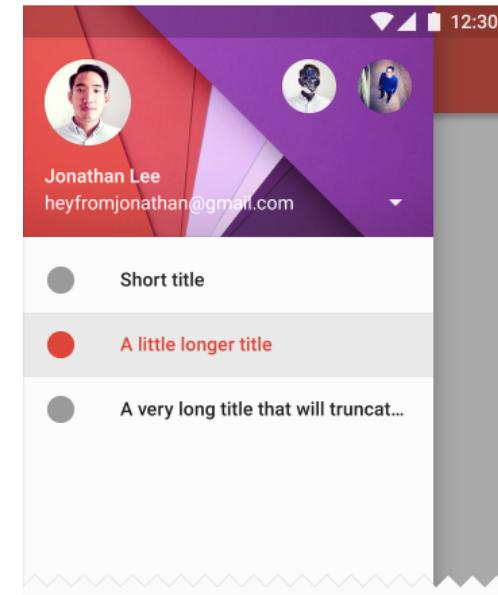
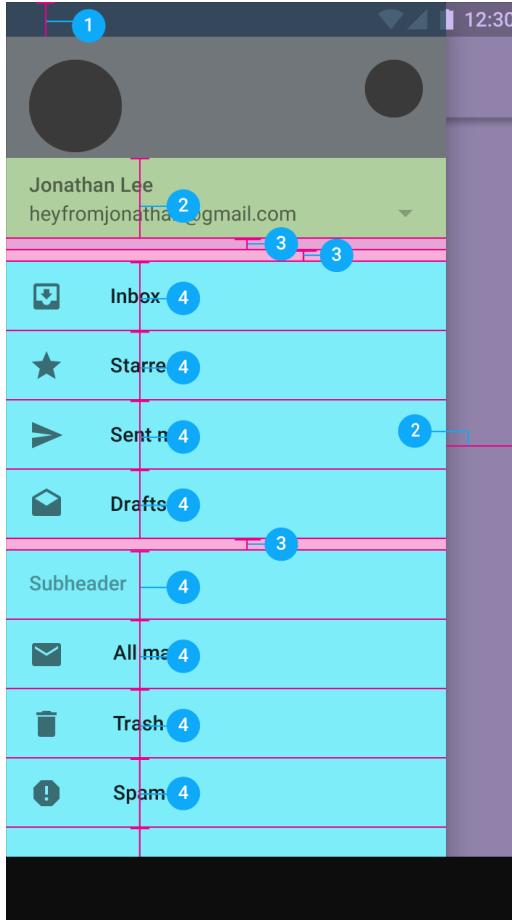
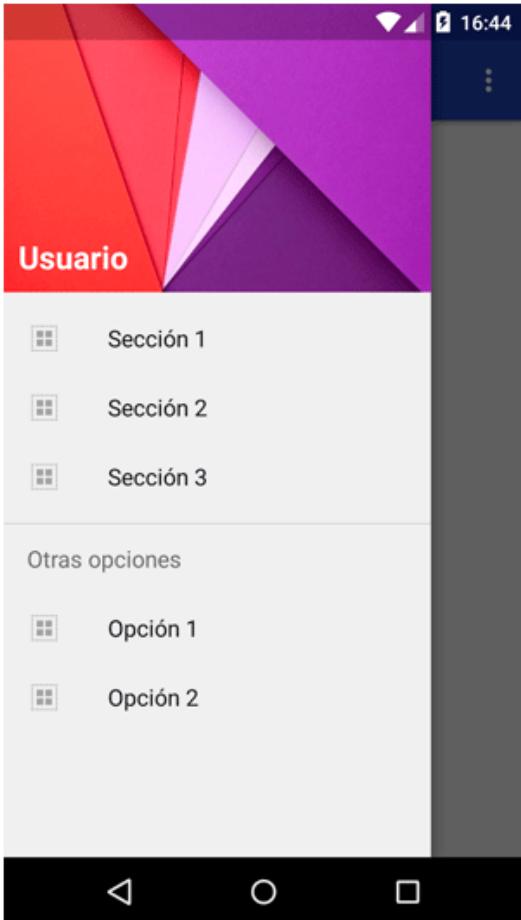
Menú de Navegación

- ✗ Cambios en la barra de acción al desplegar el menú.





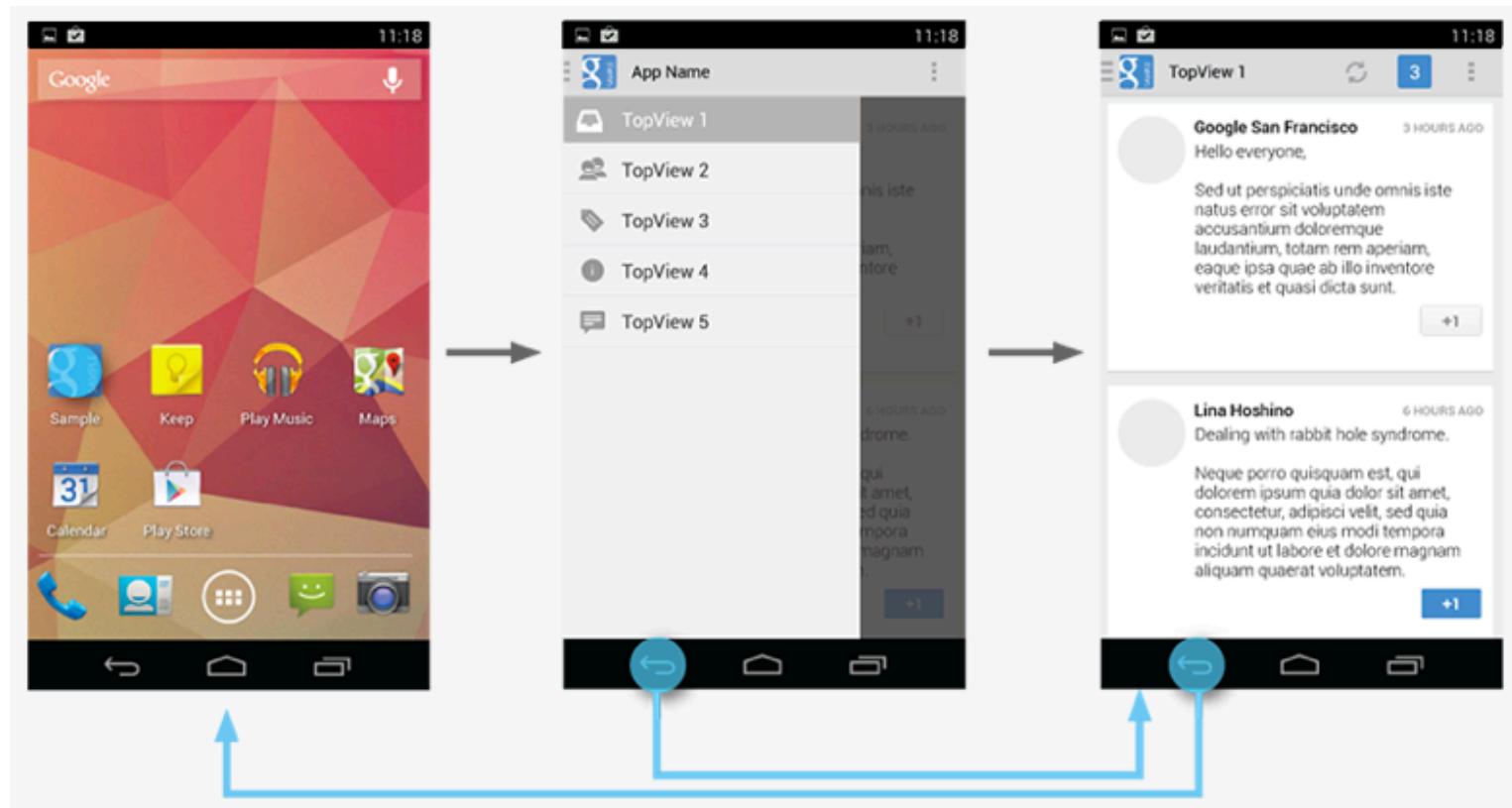
Navigation Drawer Navigation View – (MD)





Navigation Drawer Entrada a la App.

Abrir de forma automática el menú al iniciar la App.





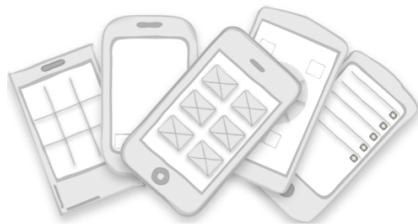
Lanzar una Acción Action Buttons

- ✗ Usarlos para las acciones más importantes dentro de la APP. (frecuentes, importantes, típicas)
- ✗ Ocultar las acciones que no estén disponibles en un contexto determinado.



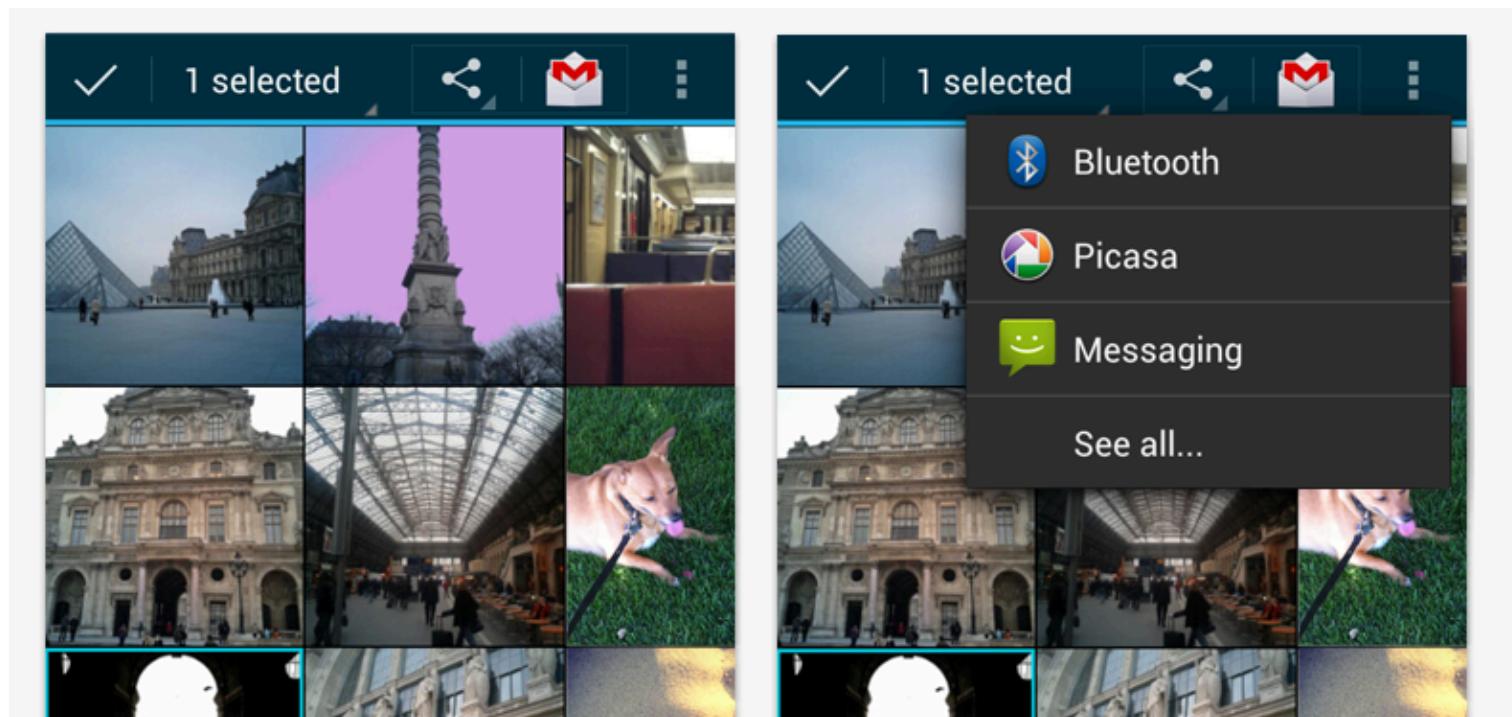
https://developer.android.com/downloads/design/Android_Design_Icons_20131106.zip

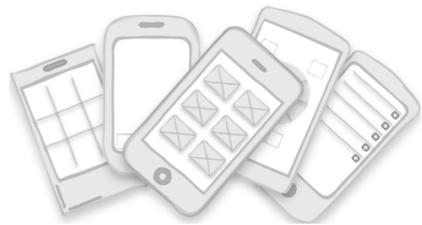
<https://www.google.com/design/icons/>



Action Buttons

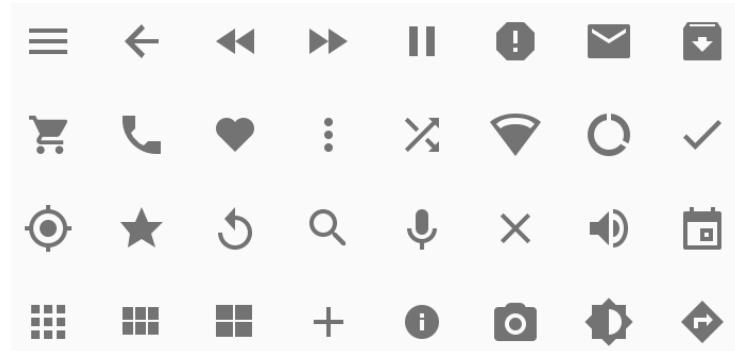
- Hay Botones de acción con un funcionamiento específico. Por ejemplo “Sharing data”





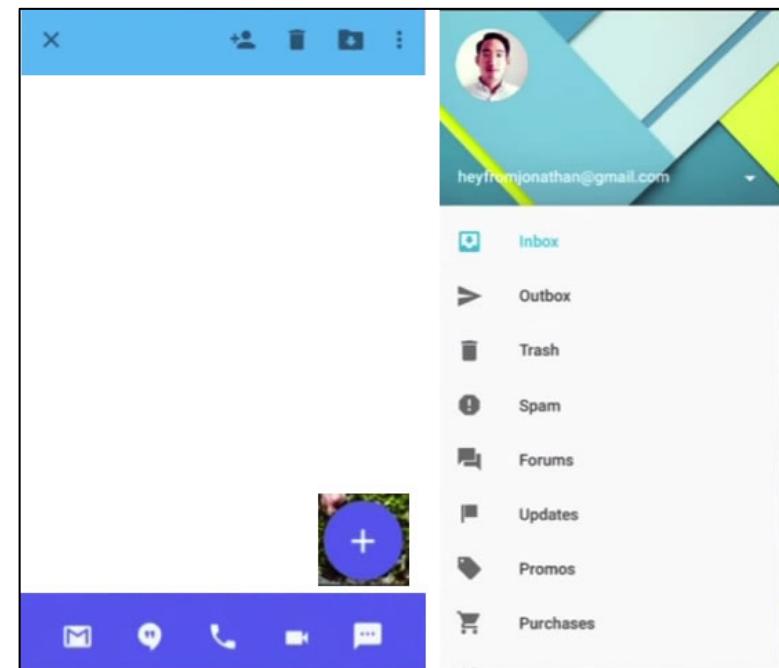
Material Icons Library (MD)

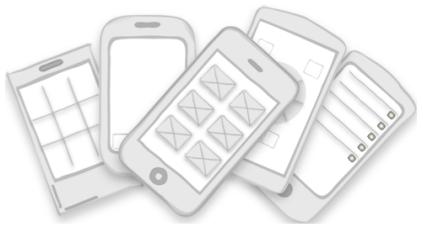
- ✗ Estandarización del uso de los iconos para representar acciones habituales.



<https://material.io/icons/>

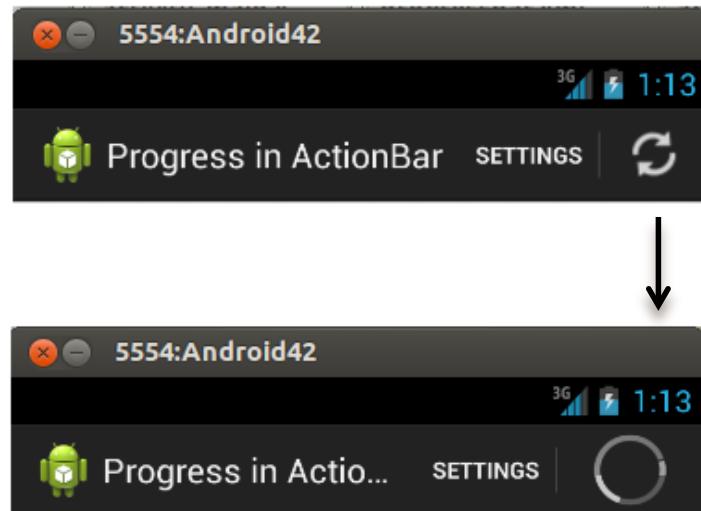
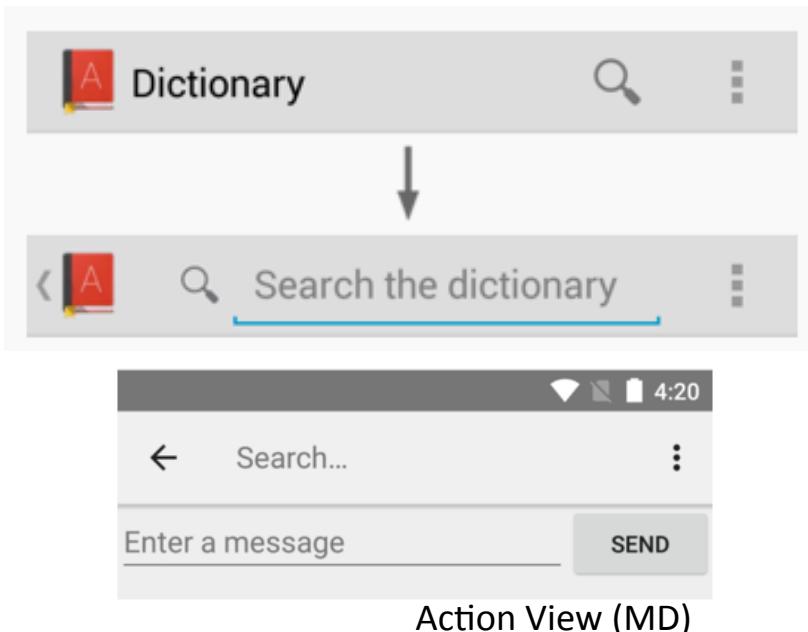
<https://google.github.io/material-design-icons/>

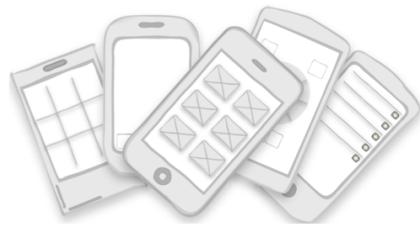




Action Views

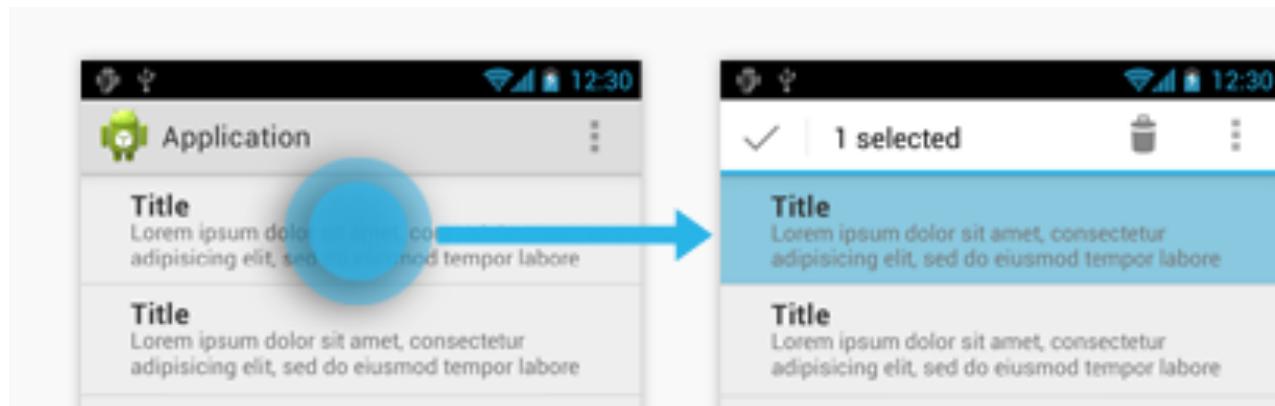
- ✗ Vista que aparece en una barra de acción como substituto de un botón de acción.
- ✗ Usado para solicitar más información al lanzar la acción o realimentar al usuario del estado..





Contextual Action Bar

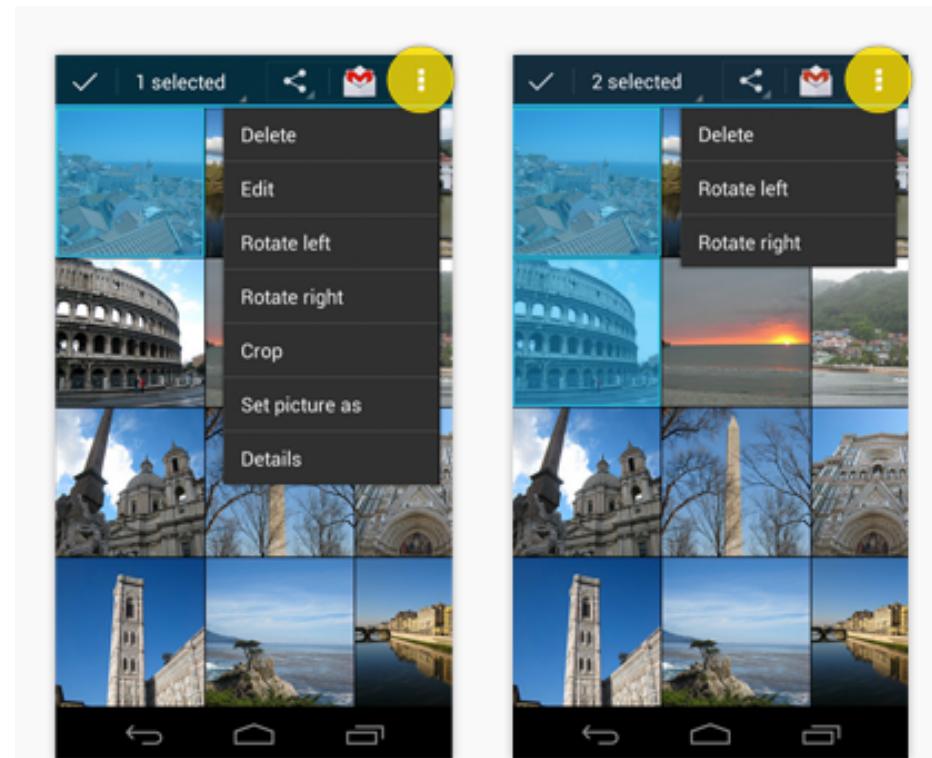
- ✗ Es una barra de acción temporal que se coloca encima de la de la App durante una sub-tarea determinada.
- ✗ Por ejemplo acciones de selección de texto o datos.

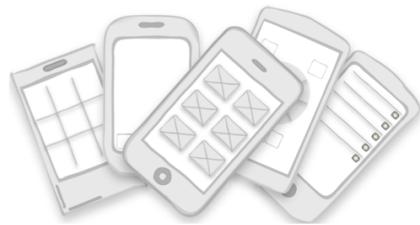




Contextual Action Bar

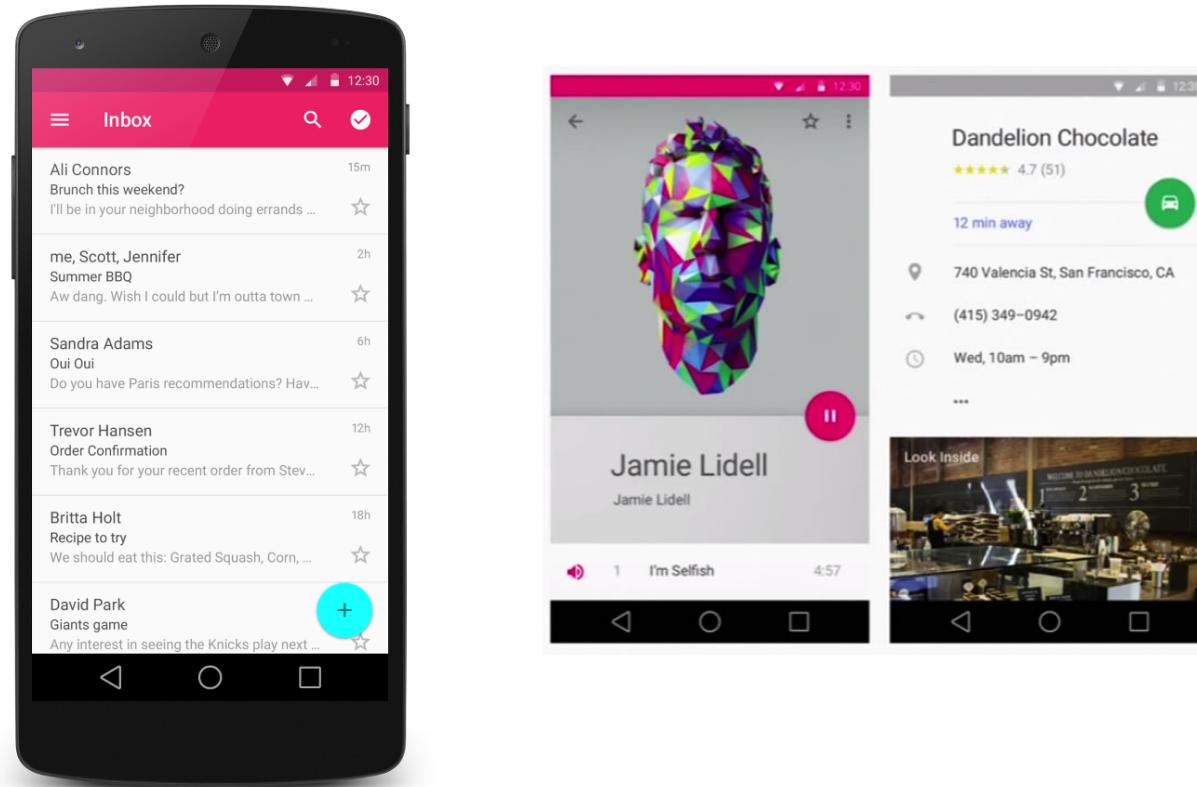
- ✗ Ajuste dinámico de las acciones dependiendo del número de elementos seleccionados.





FAB (Floating Action Button)

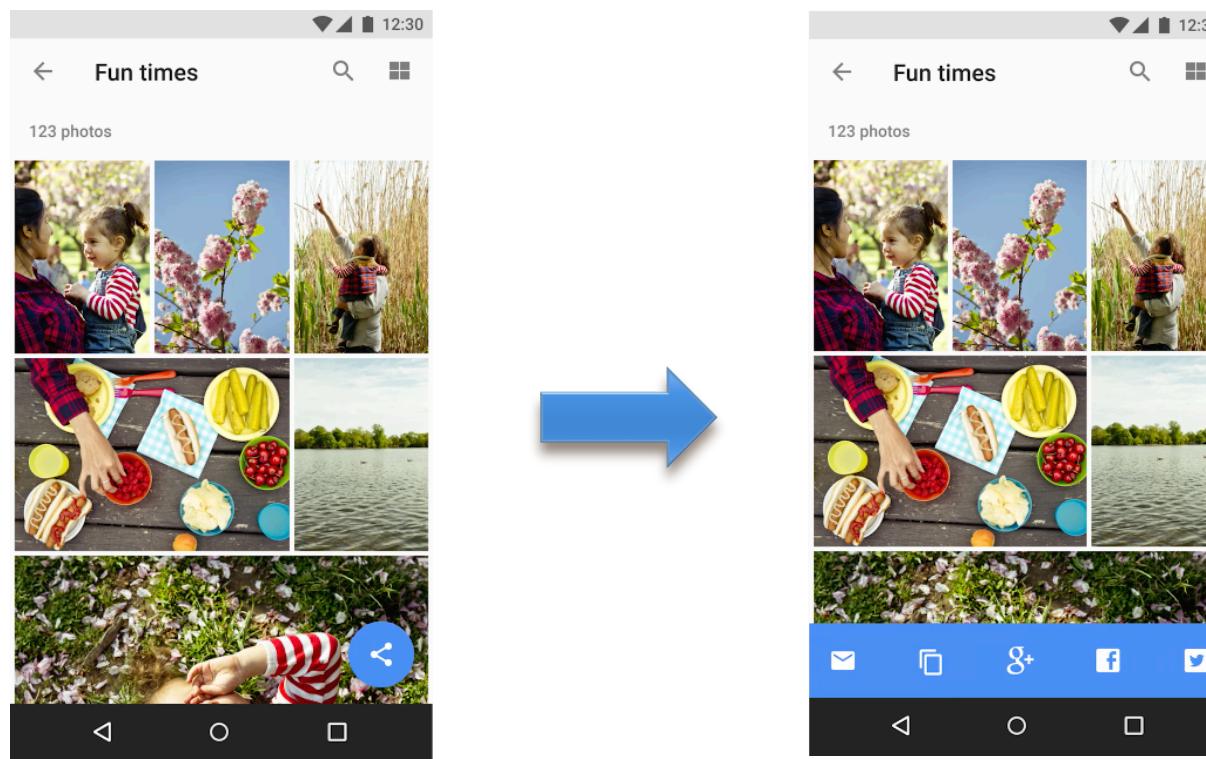
- ✖ Representa la acción que más realiza el usuario en una vista determinada.

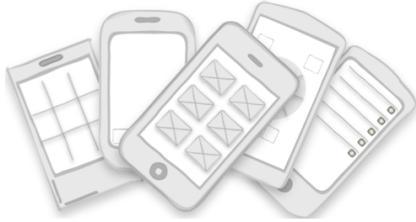




FAB (Floating Action Button)

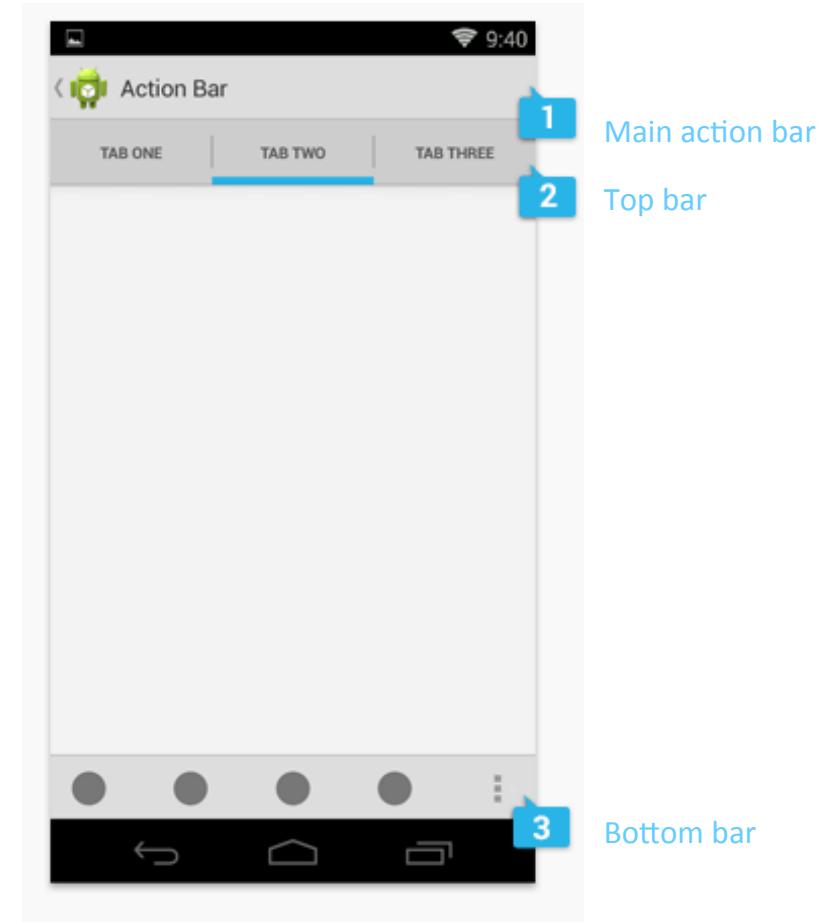
- ✗ Múltiple selección de acciones (FAB, ToolBar)

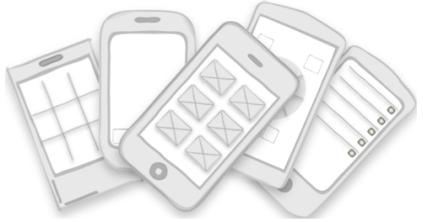




Split Action Bar

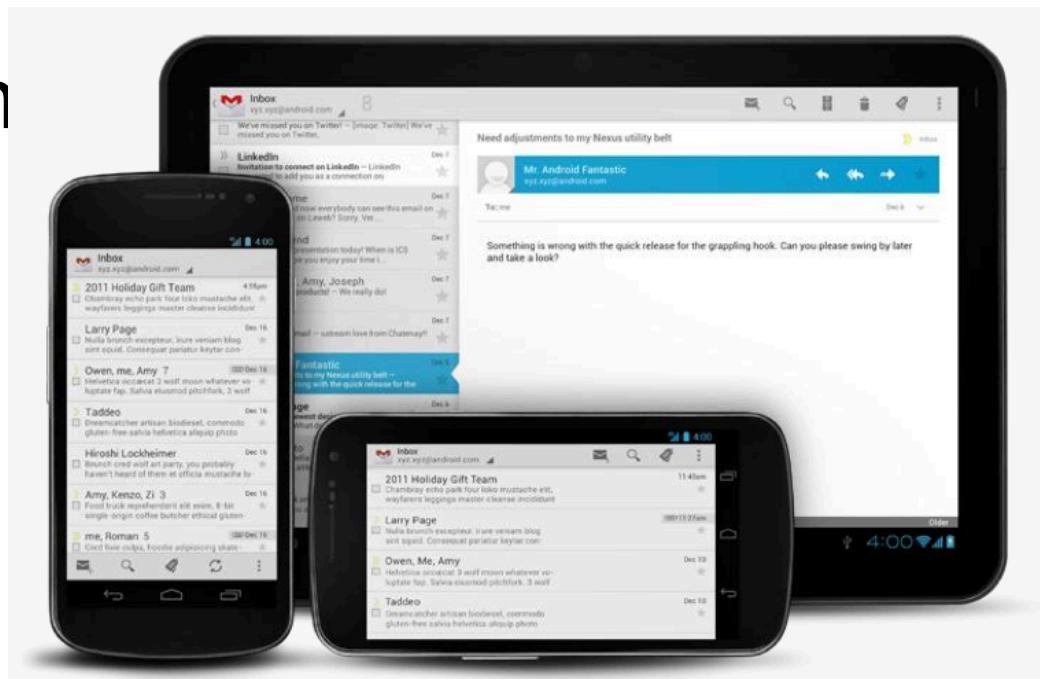
- ✗ Repartir los elementos de la barra de acción a lo largo de la vista.

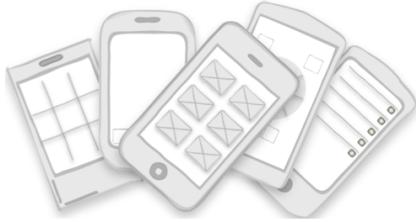




Split Action Bar

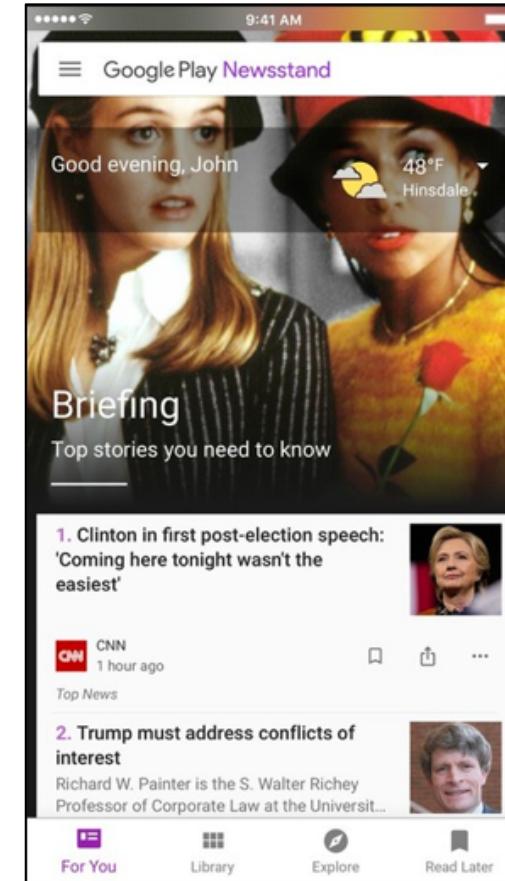
- ✗ Permite distribuir la barra de acción entre diferentes posiciones dependiendo del tamaño de la pantalla.





Bottom Navigation Bar (MD)

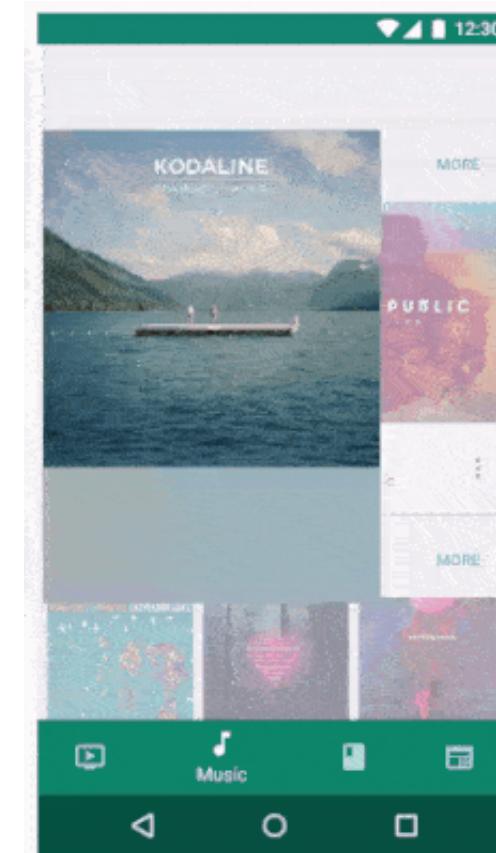
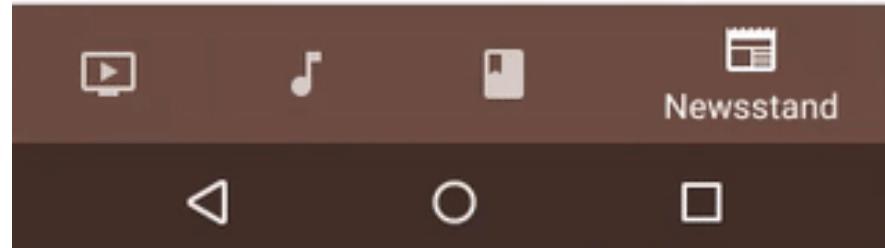
- ✖ Moverse rápido entre un número pequeño de vistas de alto nivel.
- ✖ De 3 a 5 destinos de alto nivel.
- ✖ Cuidado al mezclarlo con tabs.
- ✖ No usar navegación gestual.

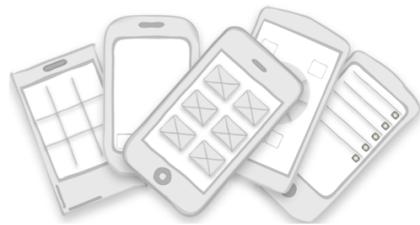




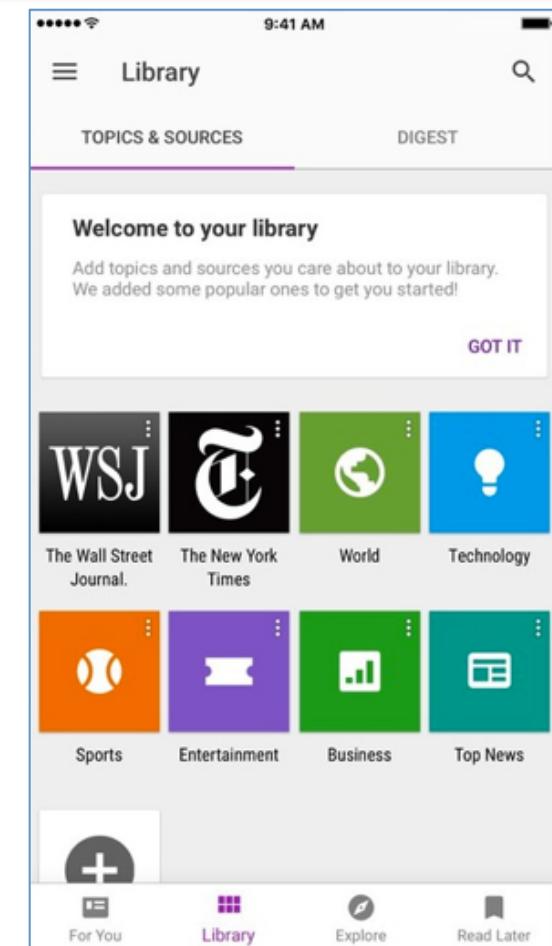
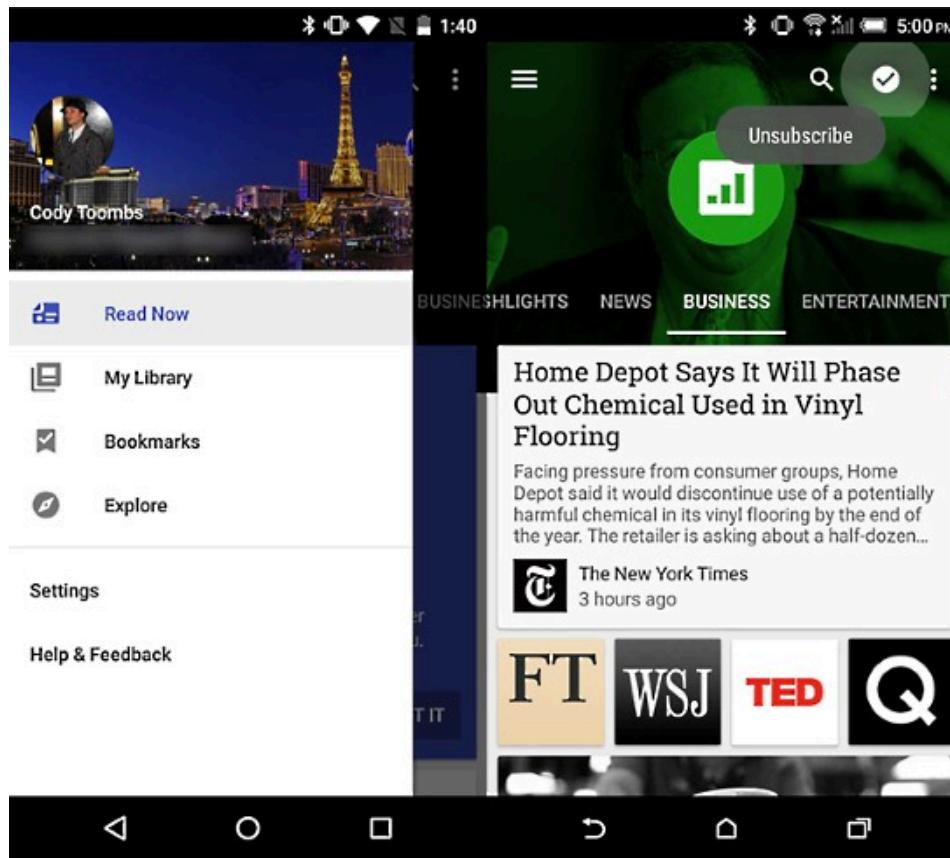
Bottom Navigation Bar (MD)

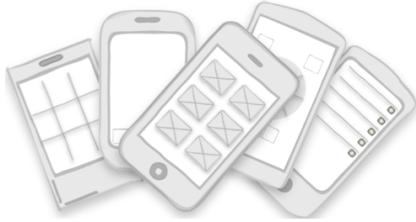
- ✗ Animación y cambio de vista.
- ✗ Inicialización del estado.





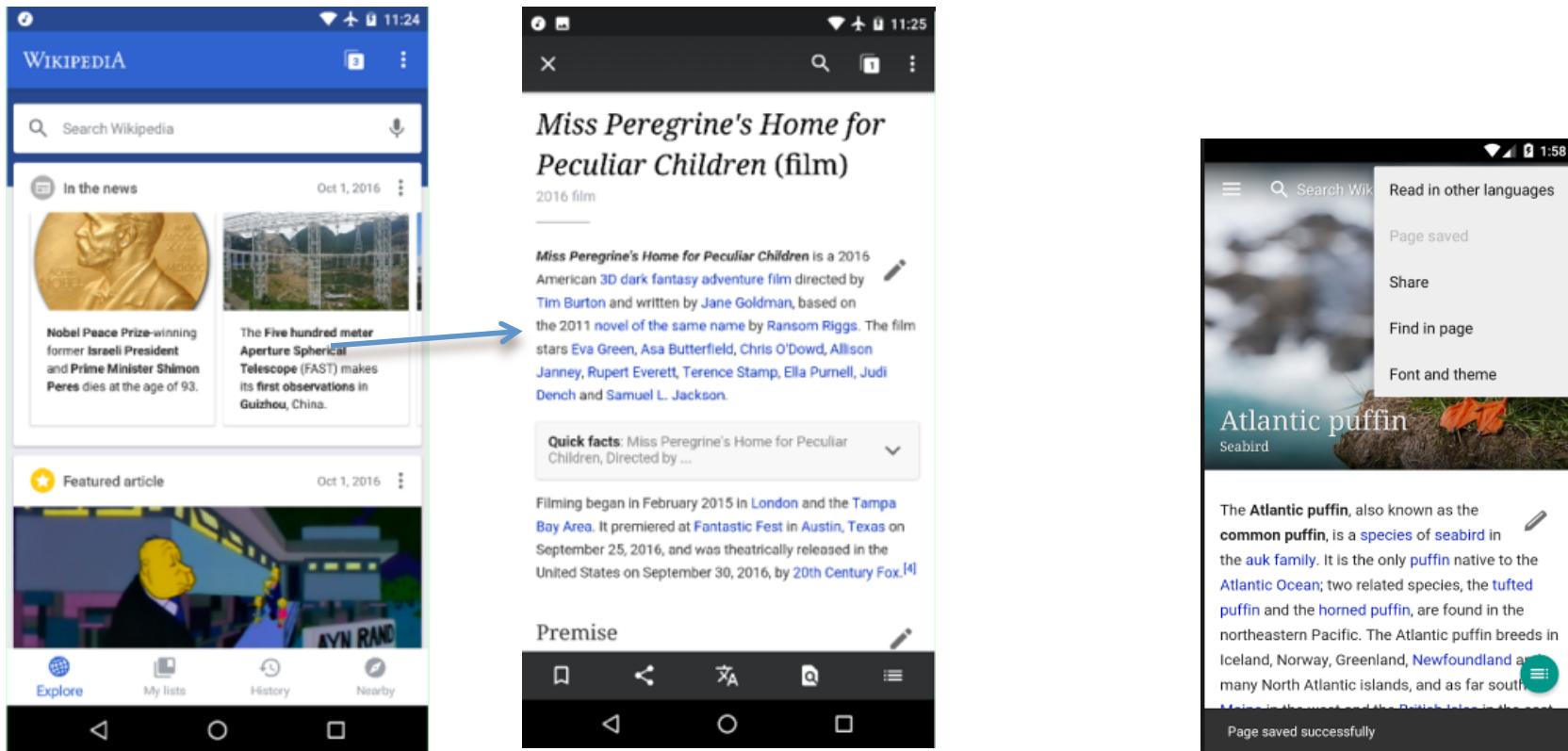
Bottom Navigation Bar (MD)





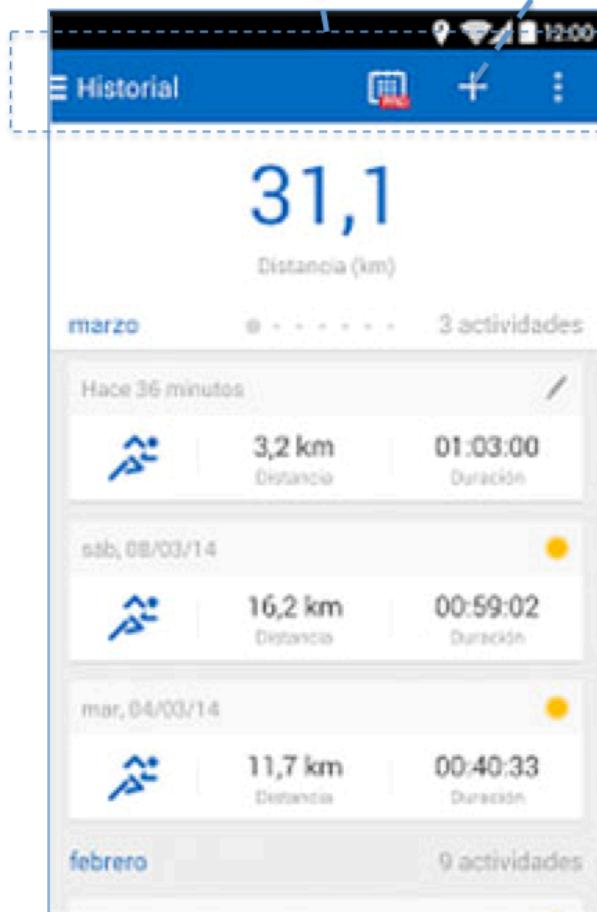
Bottom Navigation Bar (MD)

✗ Cambio de bottom bar entre vistas

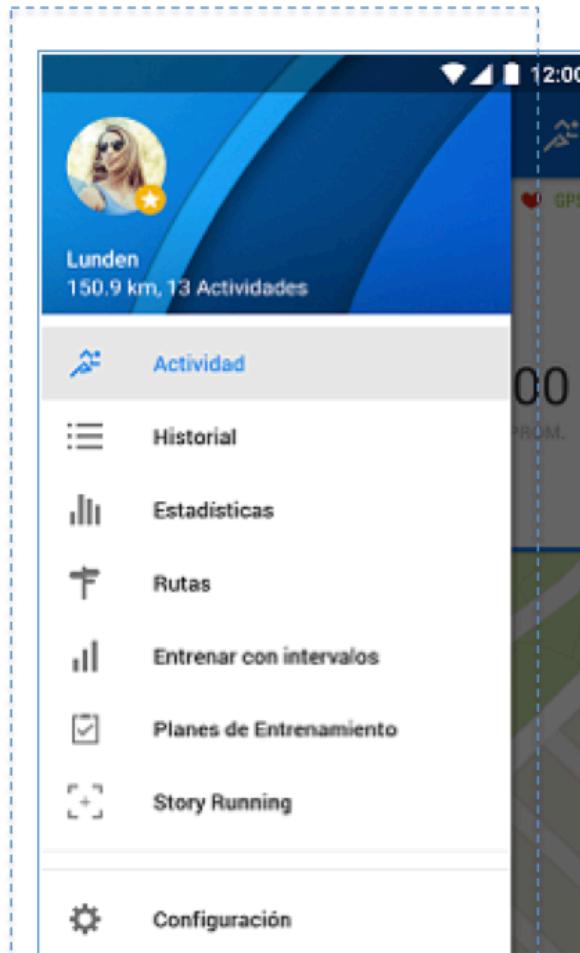


Resumen

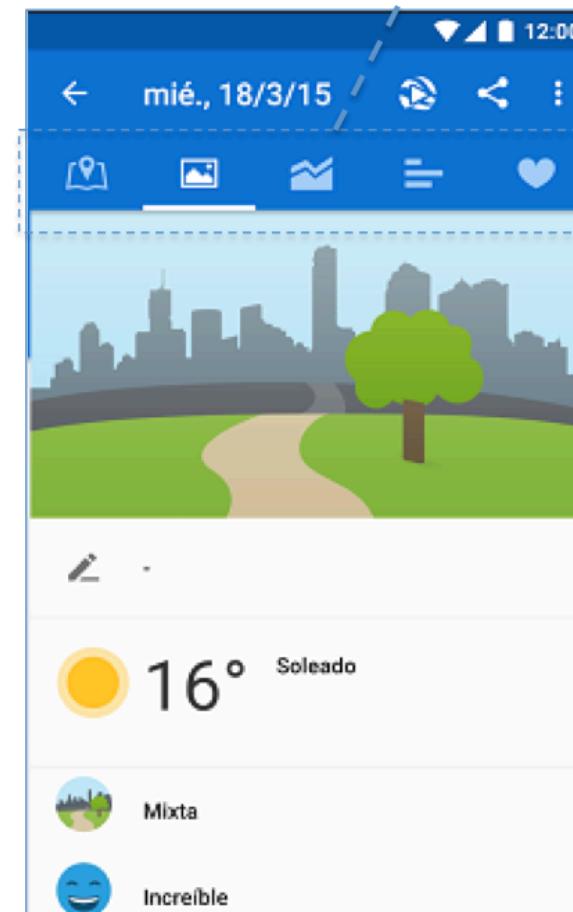
App Bar (ActionBar)



Action Button



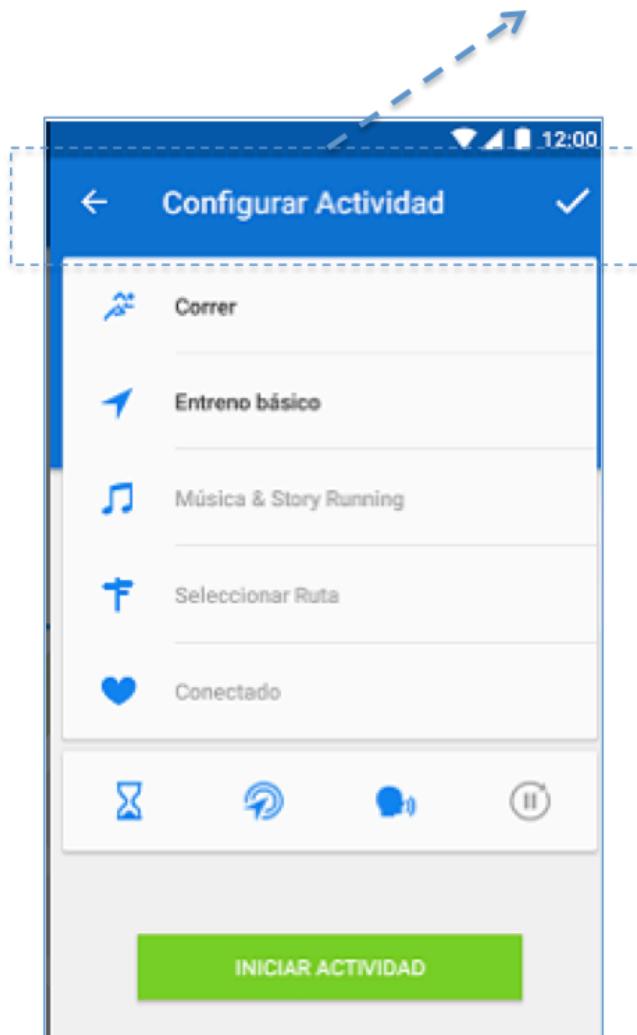
Fixed Tabs



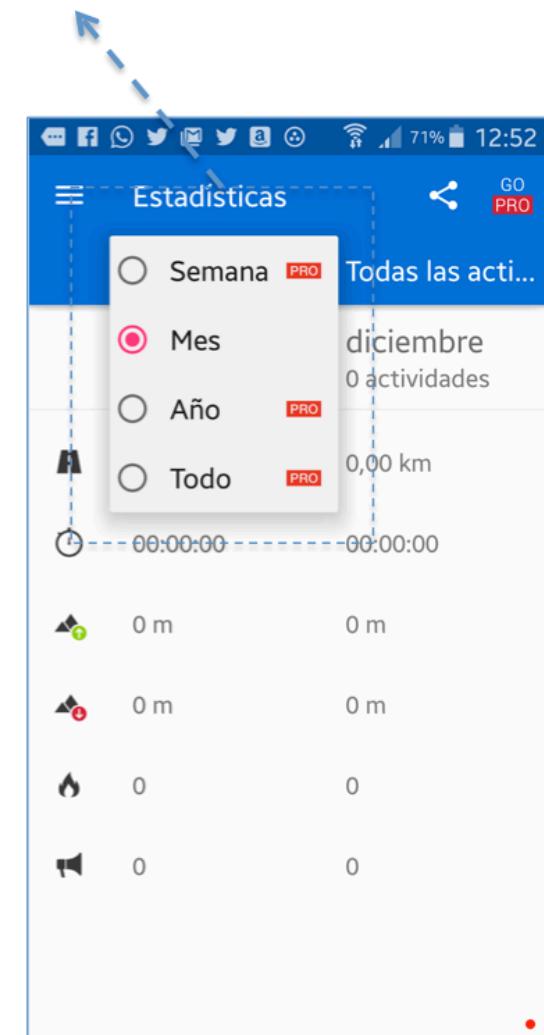
Navigation View (Drawer)

Resumen

Contextual Action Bar



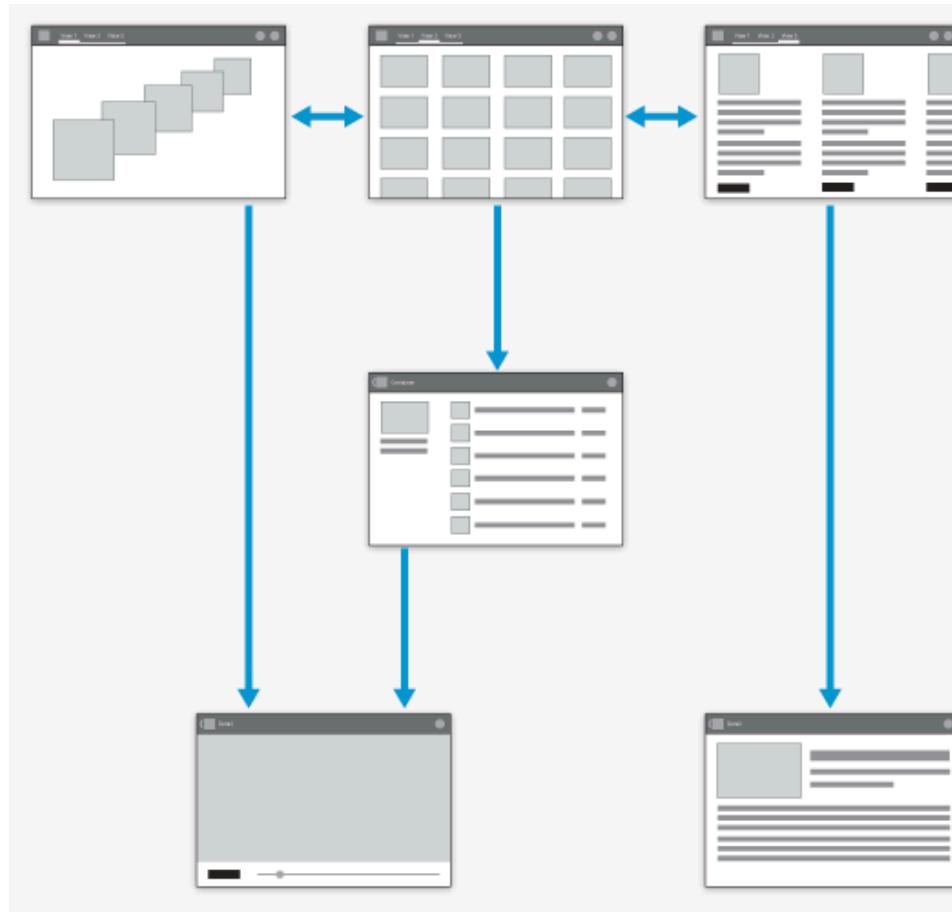
Spinner (Context Menu)



FAB



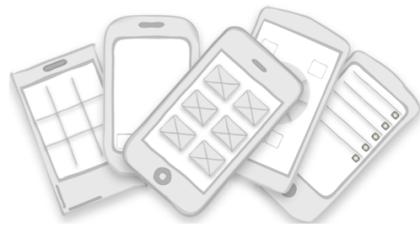
Estructura general de una APP dirigida por datos



(1) Vistas de alto nivel

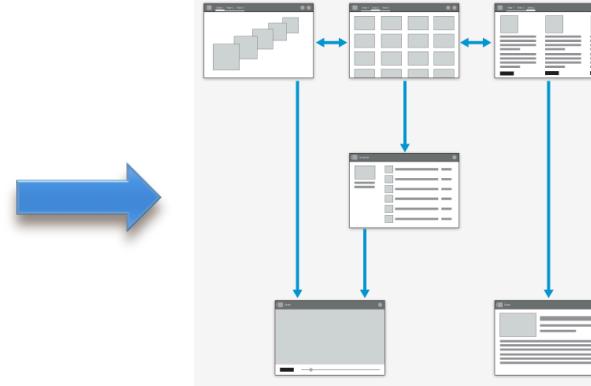
(2) Vistas de categoría

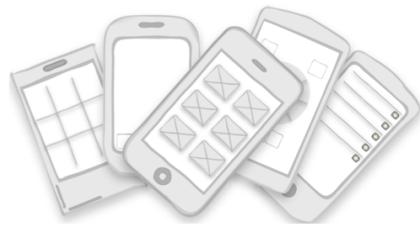
(3) Vistas de detalle/edición



Estructura de una App en Android

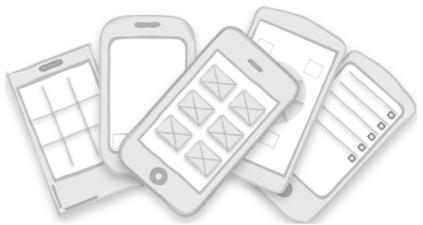
2.2 - Vistas de Categorías



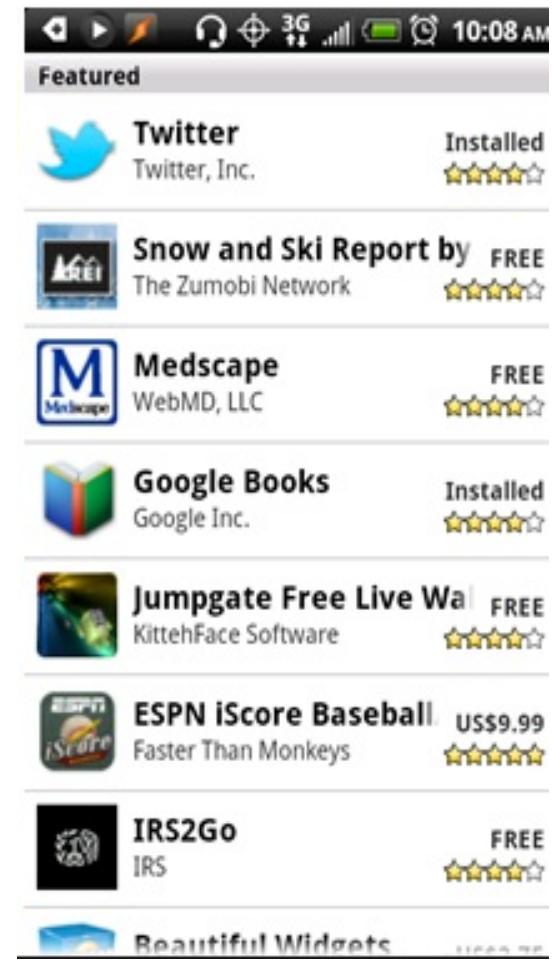
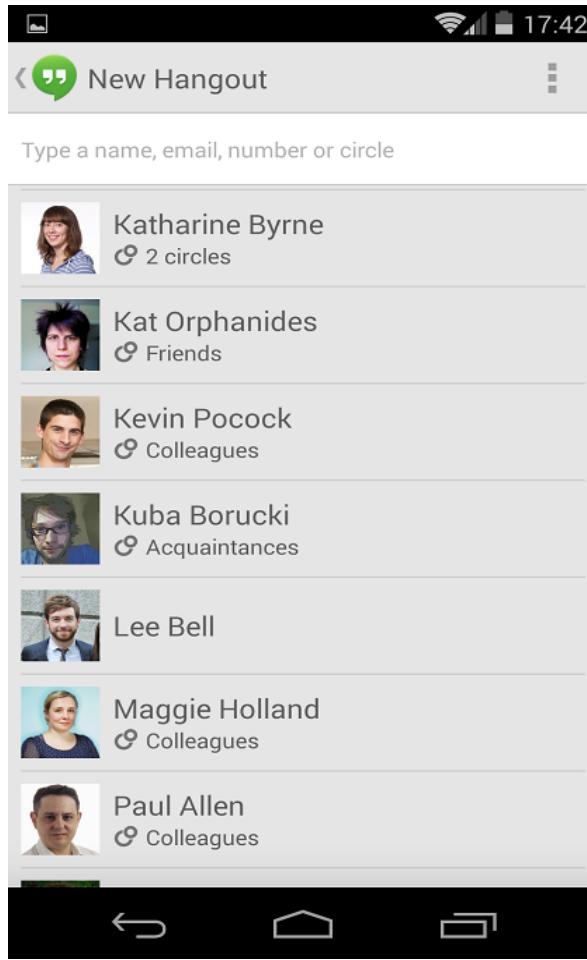
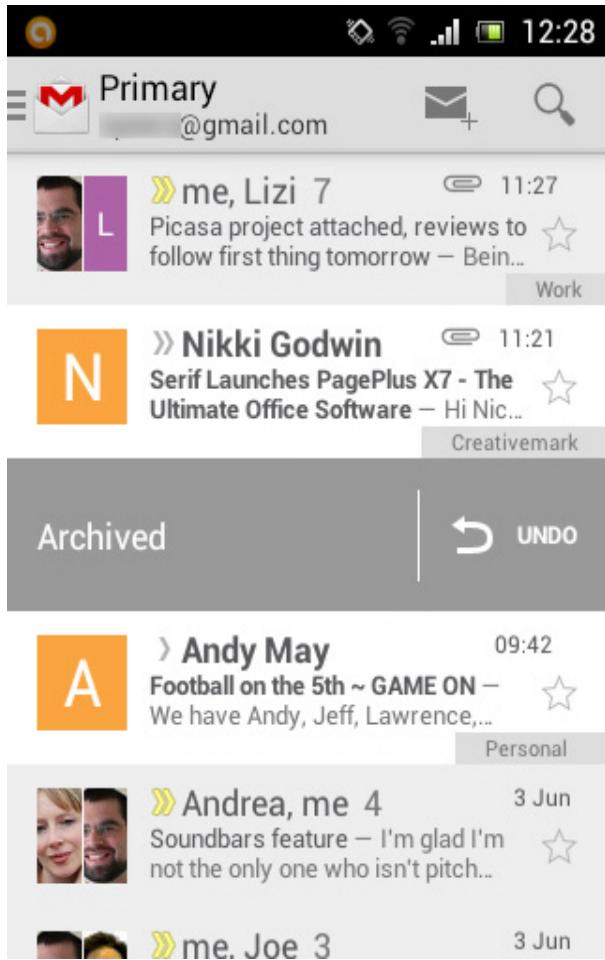


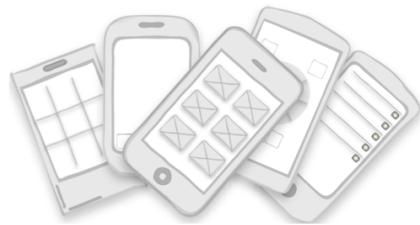
(2.2) Vistas de Categorías

- ✖ Conjunto de vistas que nos permiten navegar a través de las categorías hasta alcanzar los niveles de detalle.
- ✖ Habitualmente navegación sobre una estructura jerárquica. (carpetas, álbum, resultados de una búsqueda, catalogo, ...)
- ✖ Evitar crear niveles profundos dentro de la App.



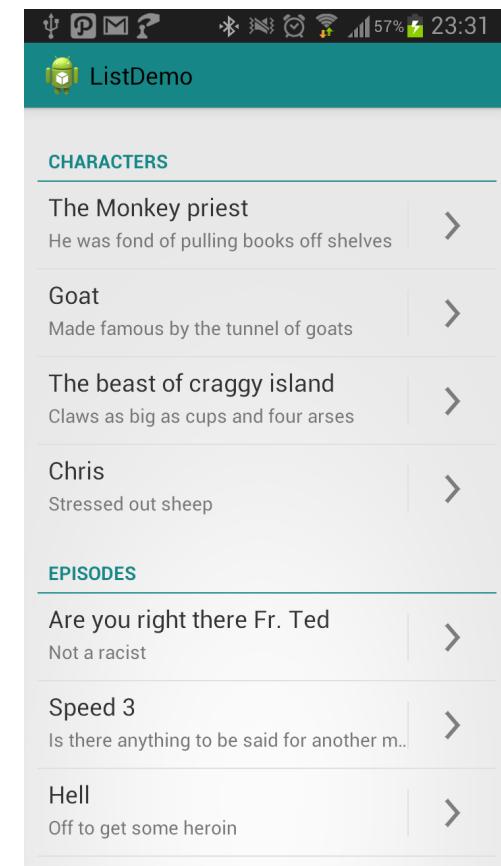
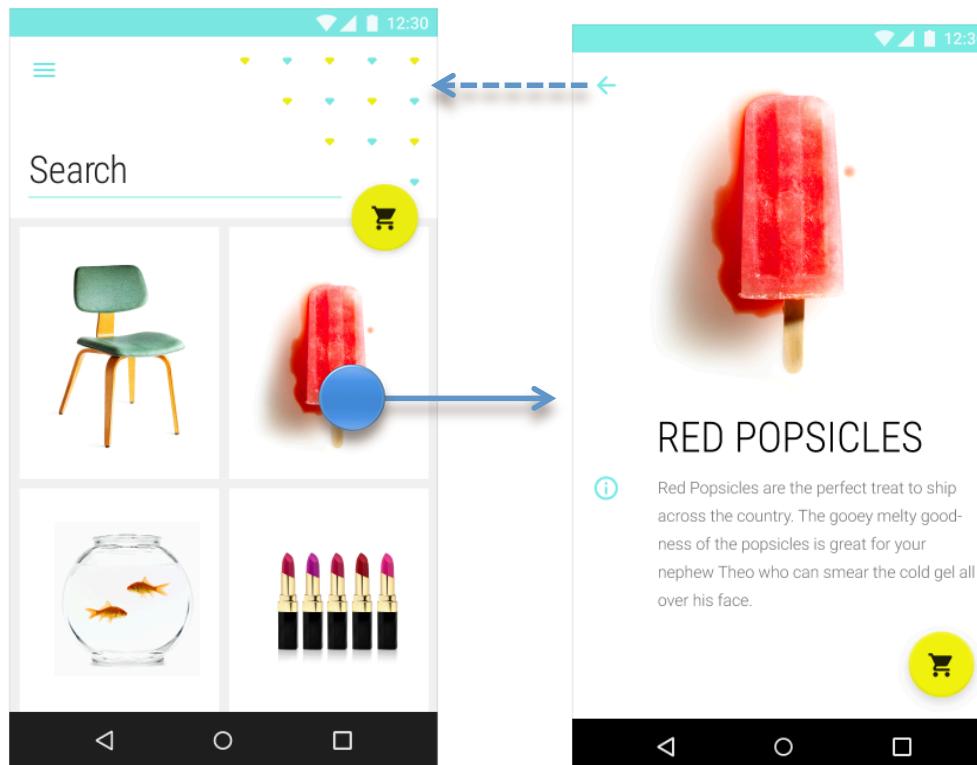
(2.2) Vistas de Categorías





Navegación entre categorías

✗ Enlace entre vistas

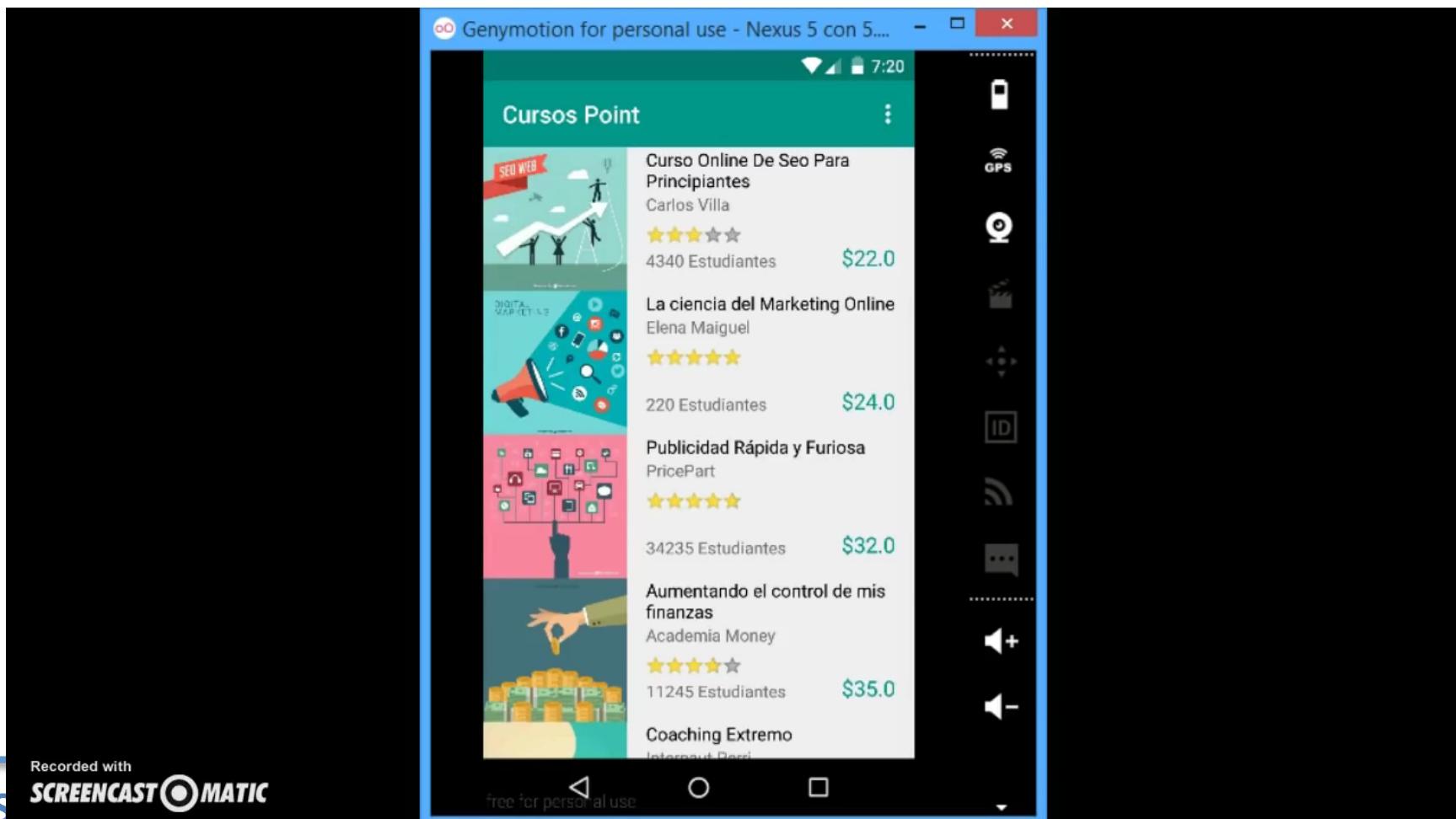


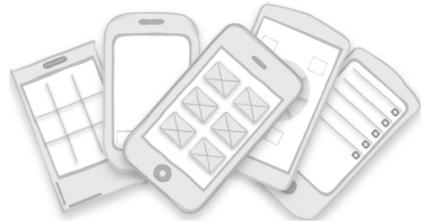
listView



Navegación entre categorías

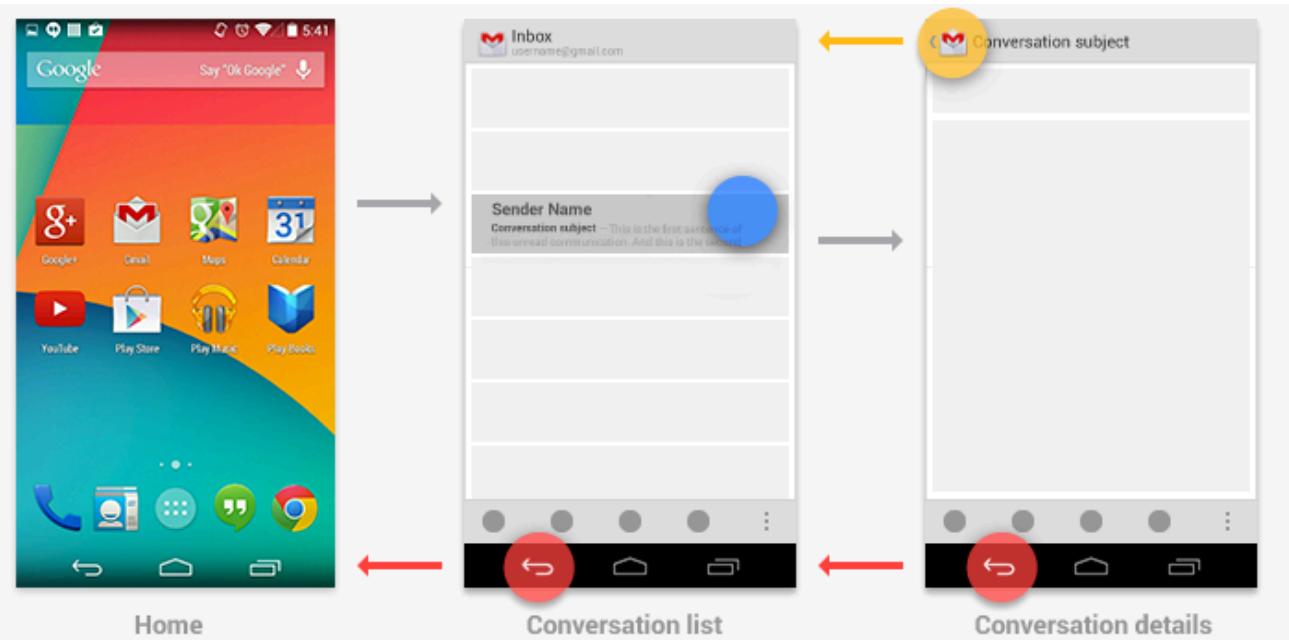
✗ Transiciones en MD

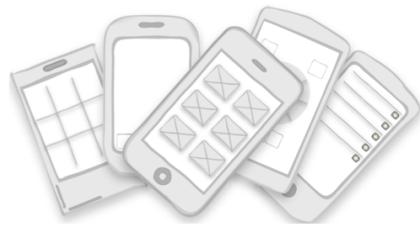




Navegación entre categorías (Up&Back)

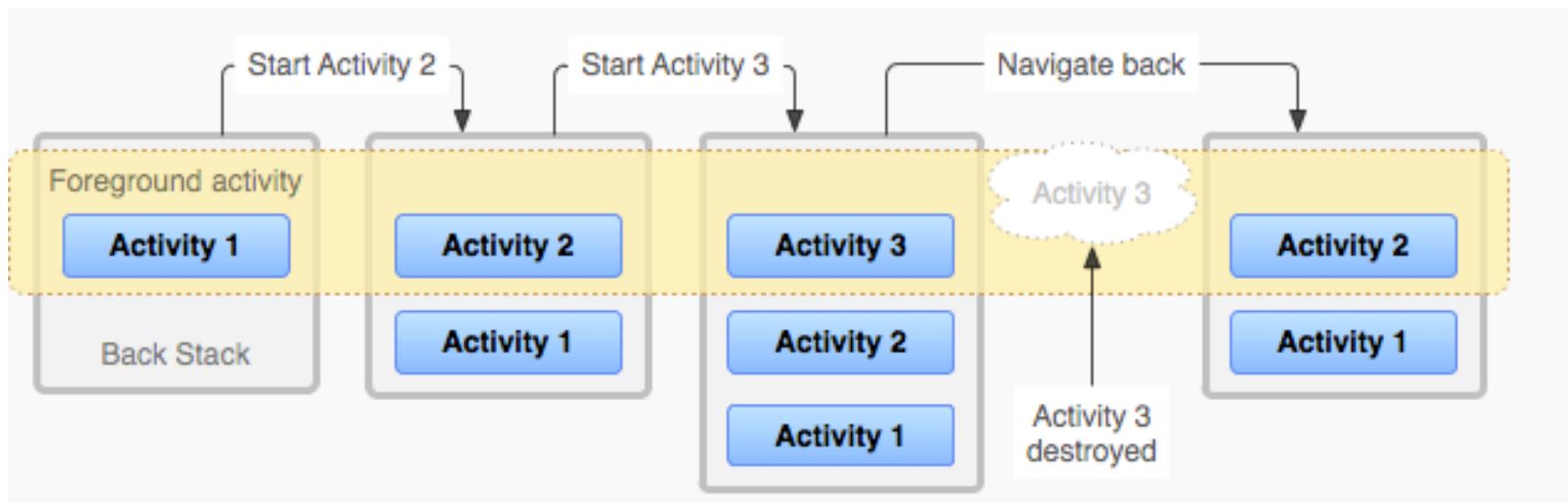
- ✗ **Botón Arriba (Up).** Navegar a la categoría anterior de la jerarquía de datos.
- ✗ **Botón Atrás (System-Back).** Navegar en orden cronológico inverso sobre las actividades visitadas.



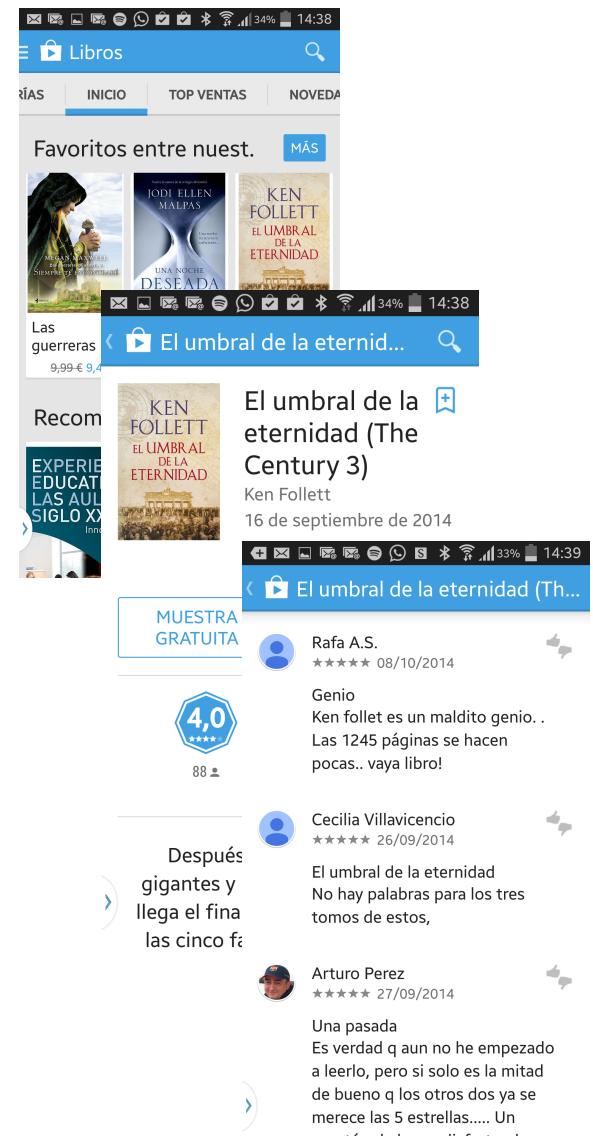
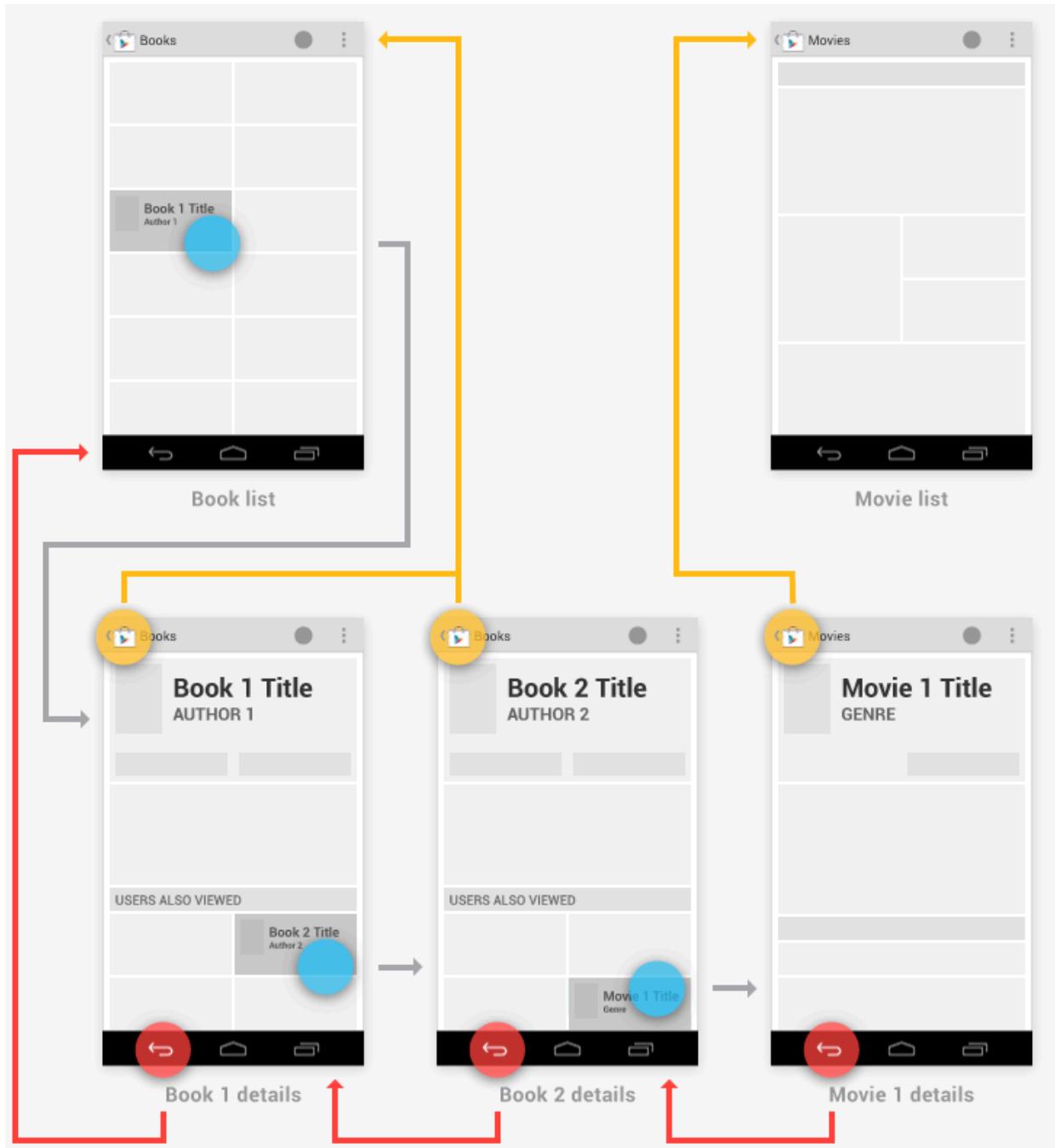


Navegación entre categorías (Up&Back)

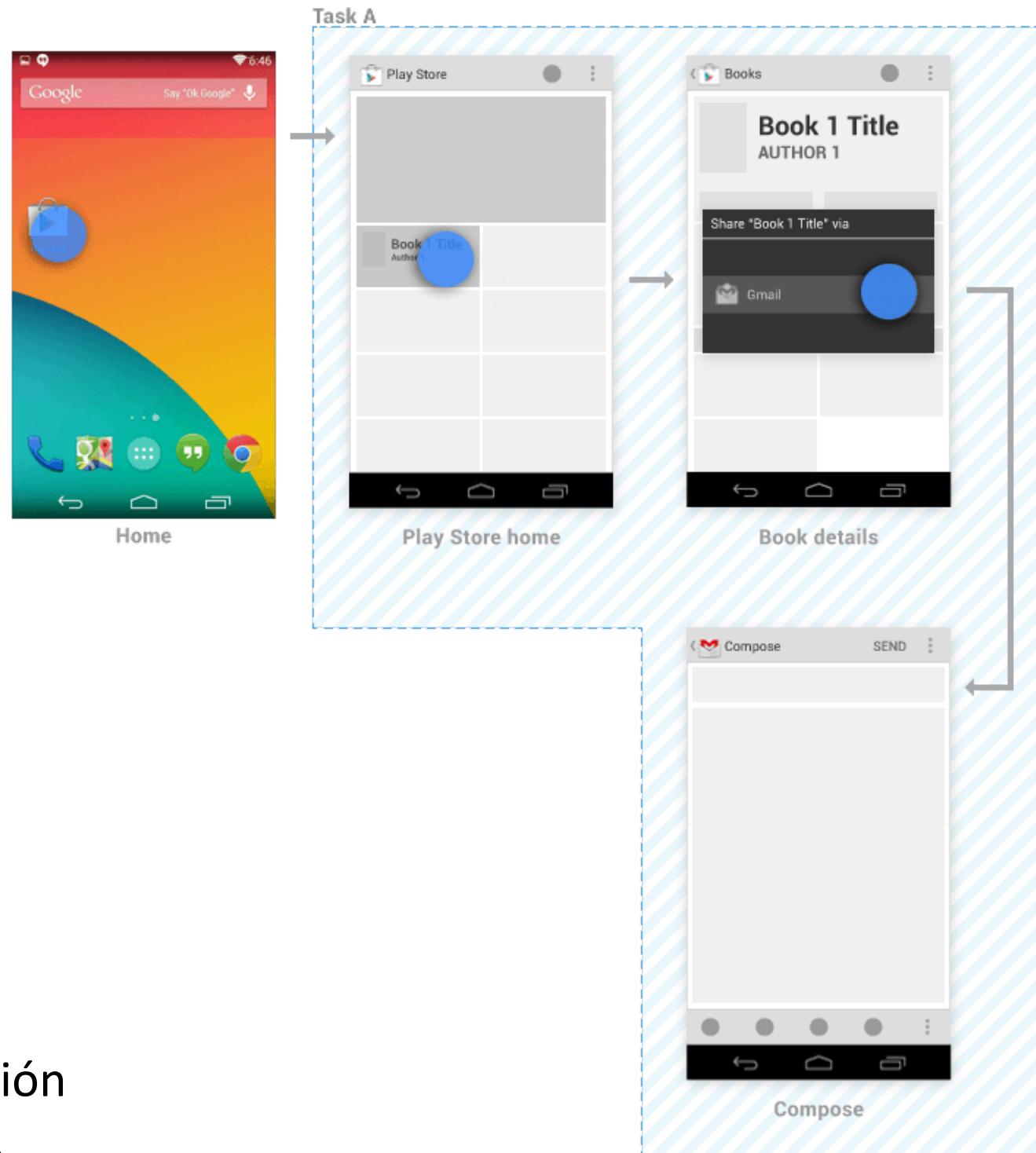
- × Botón Arriba (Up). Navegar a la categoría anterior de la jerarquía de datos.
- × Botón Atrás (System-Back). Navegar en orden cronológico inverso sobre las actividades visitadas.



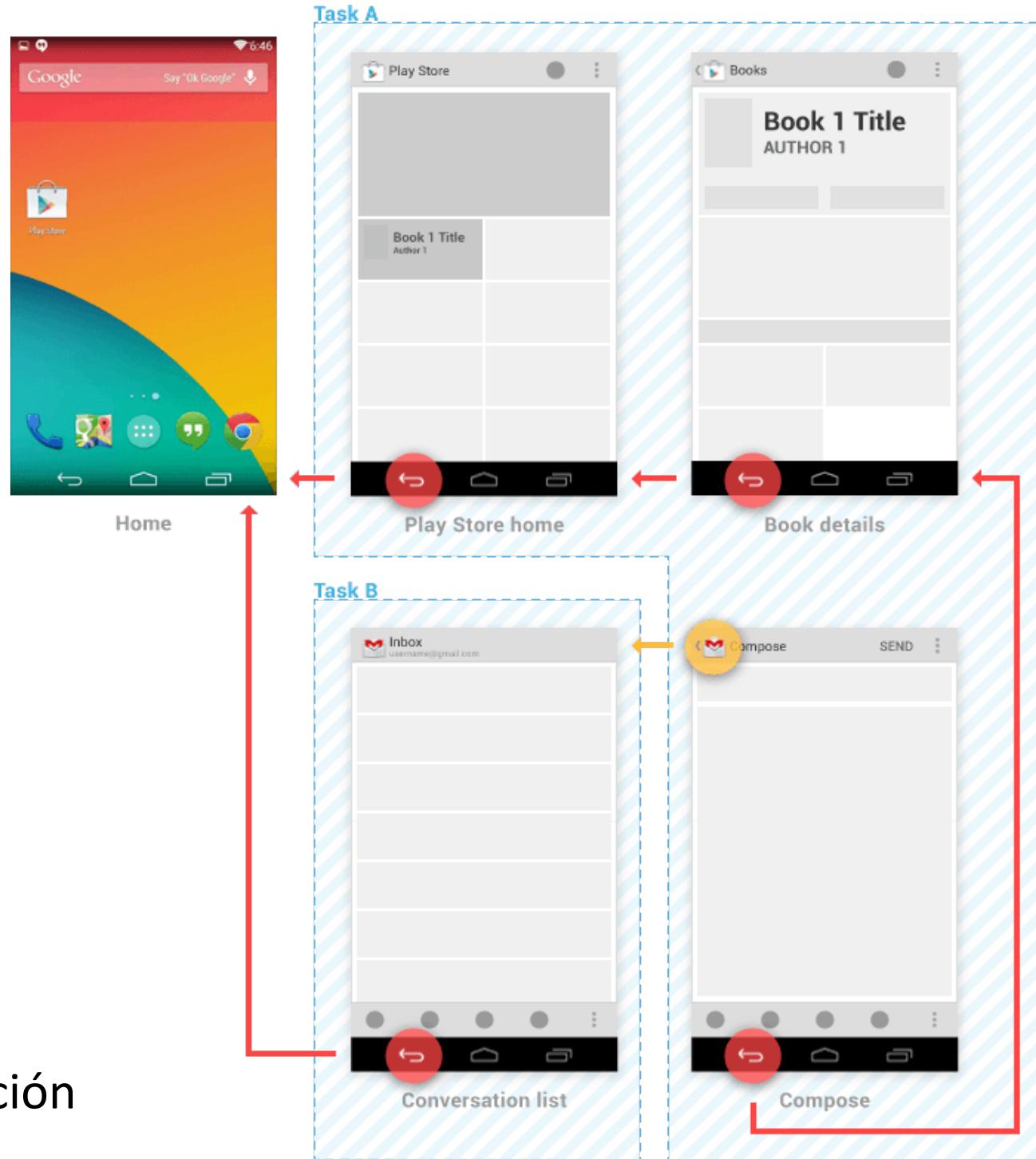
Pila de Actividades – BackStack)

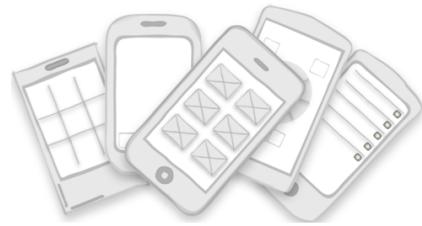


Lanzando una Aplicación
desde dentro de otra.



Lanzando una Aplicación
desde dentro de otra.

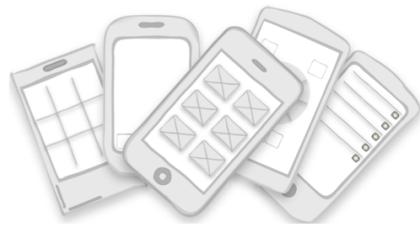




System-Back

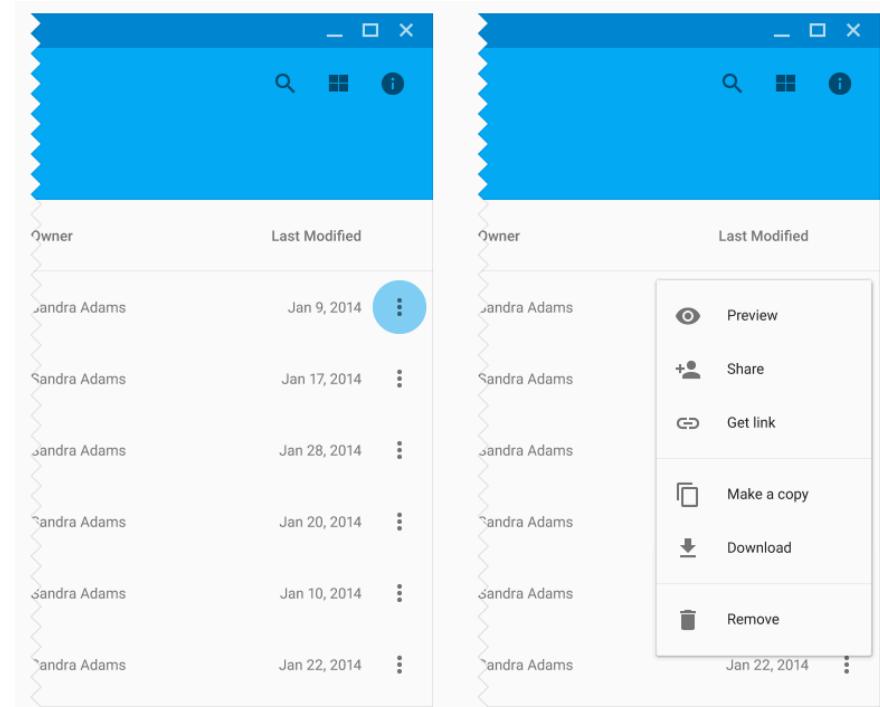
También sirve para:

- ✗ Cerrar ventanas flotantes (dialogs, popups)
- ✗ Cerrar barras de acción contextuales.
- ✗ Deseleccionar elementos de una lista.
- ✗ Cerrar los teclados.



Menús en contexto

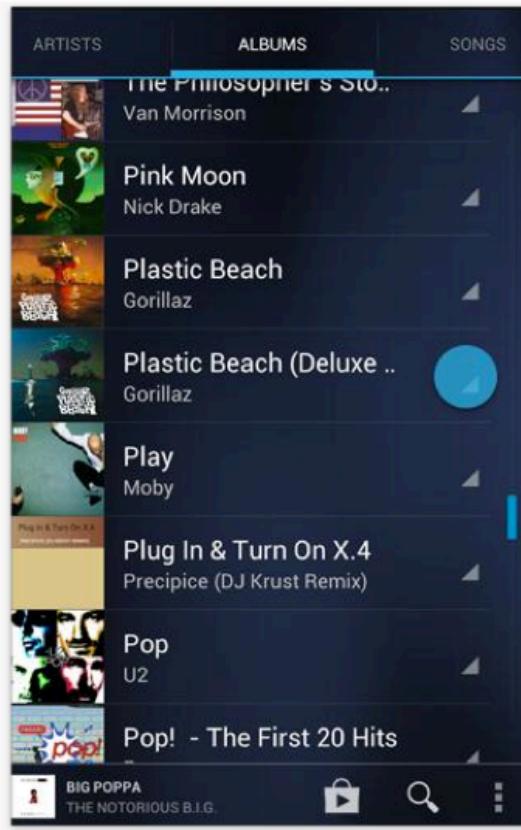
- ✗ **Floating Context Menu.**
(Menú flotante)
- ✗ Actuar frente a un dato dentro de una categoría con un conjunto de funciones disponibles.
- ✗ No tenemos que navegar hasta llegar a la vista del dato.



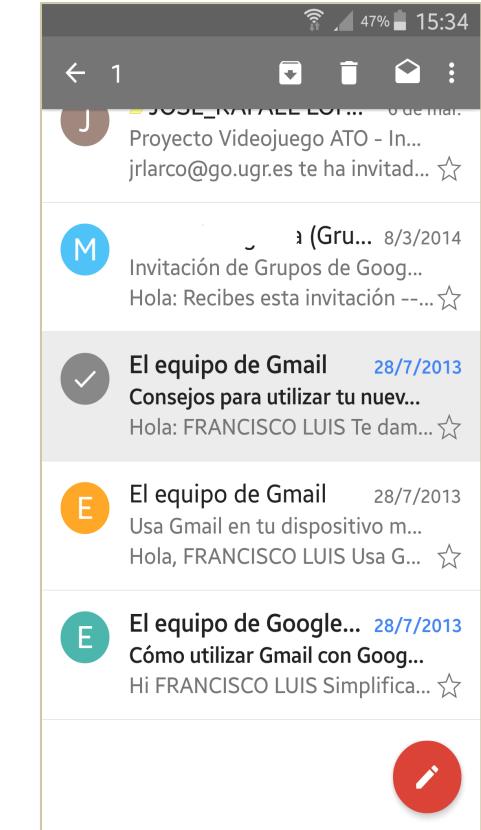
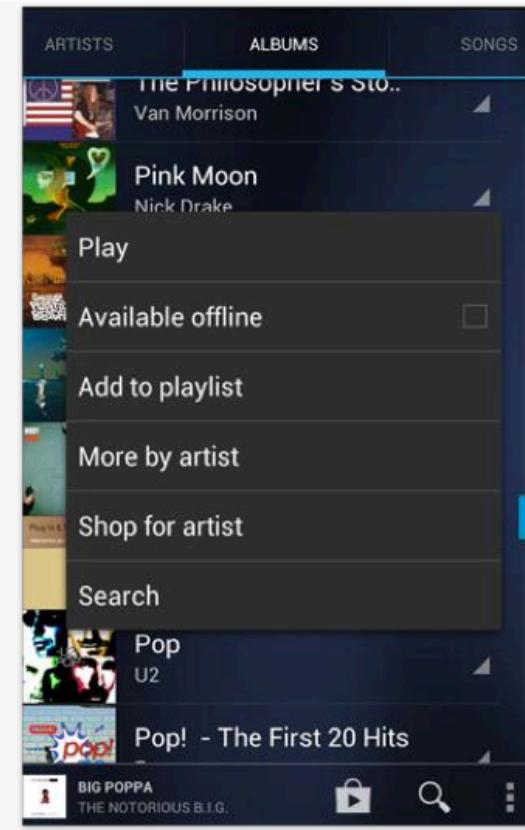
“Long Press Gesture”



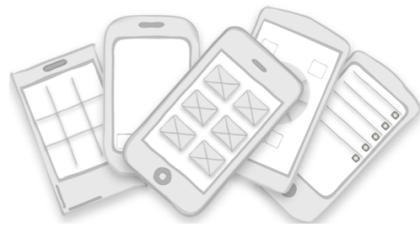
Menús en contexto



Floating Context Menu

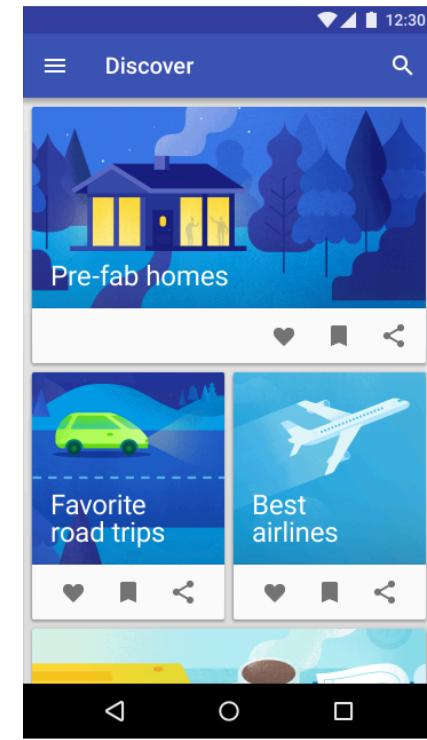
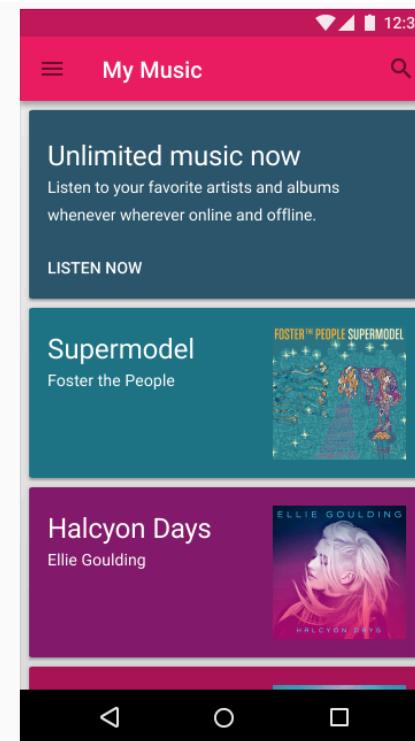
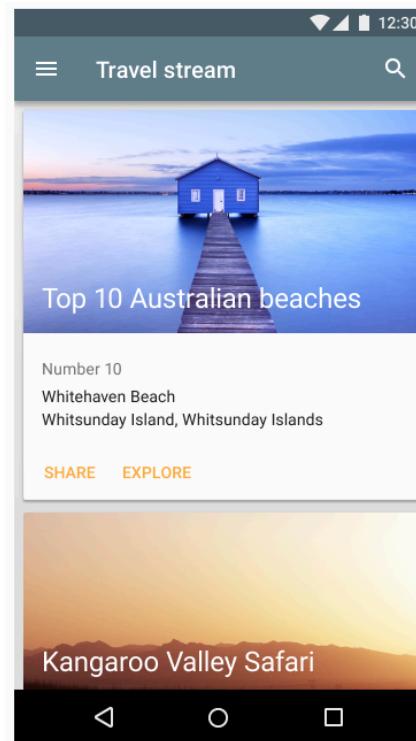
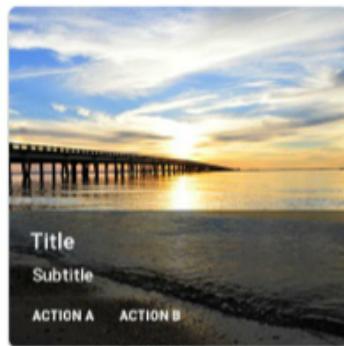


Contextual Action Bar



Tarjetas (Cards - MD)

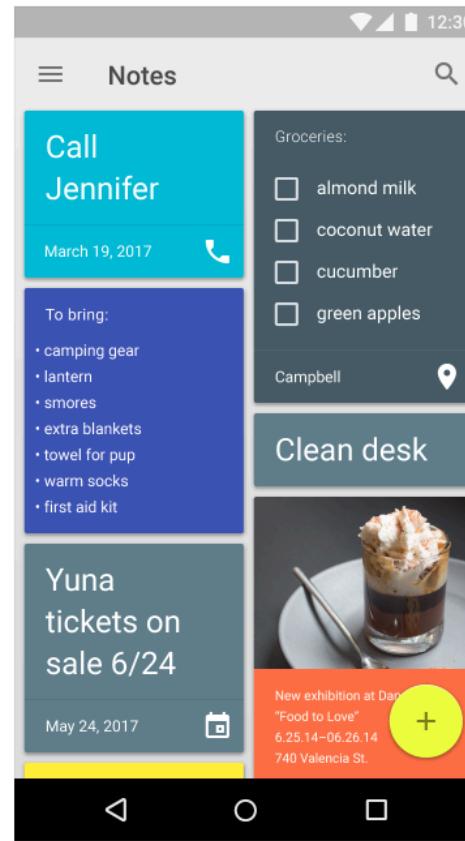
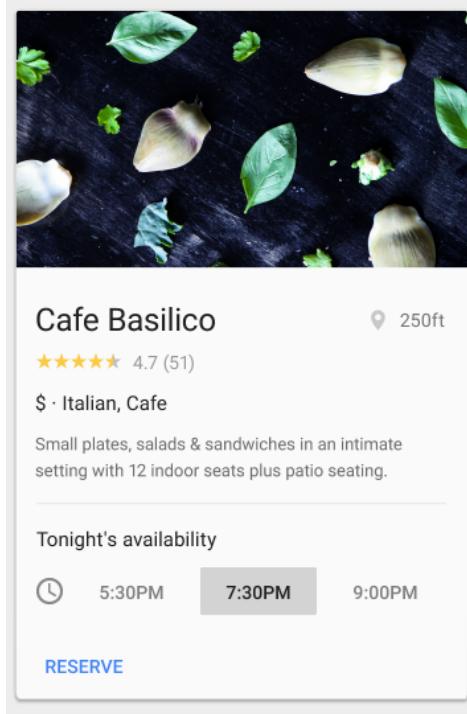
- ✗ Trozo de papel que sirve como enlace a una información más detallada. (tarjetas de información)

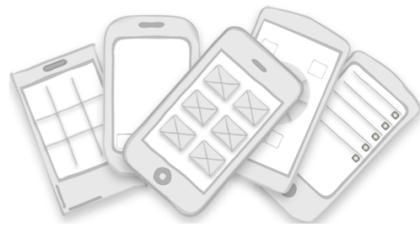




Tarjetas (Cards - MD)

× Información de tarjetas heterogéneas





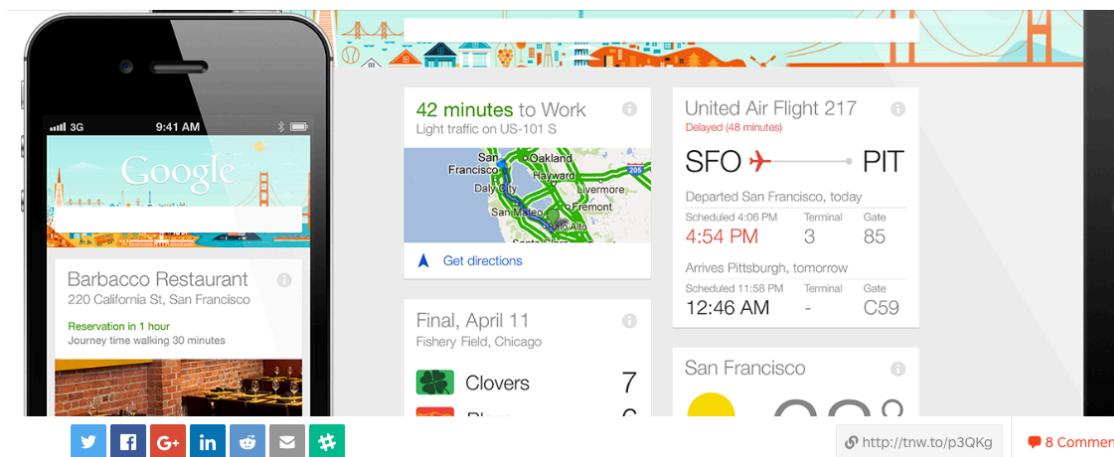
Lectura recomendada

✗ Información de tarjetas heterogéneas

The future of cards in Web design

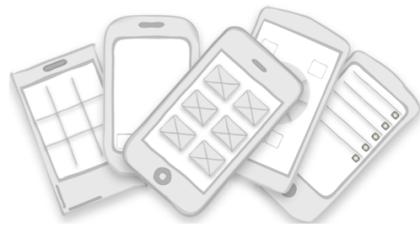


by JERRY CAO Tweet — 15 Jul, 11:12am in DESIGN & DEV



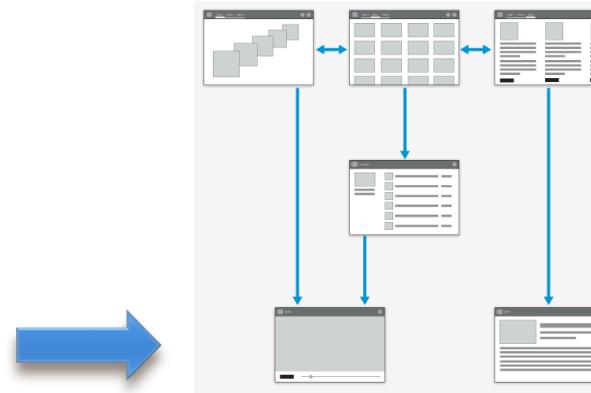
You've been seeing those rectangular boxes on a lot of websites lately, right? Those are cards, and they're popping up more and more. But don't mistake cards for being a mere trend or simply eye-candy. Cards are as practical as they are popular – in fact, that's why you're seeing them so often.

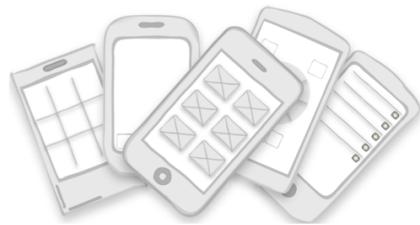
SWAD/FutureOfCardsWebDesign.pdf



Estructura de una App en Android

2.3 - Vistas de detalle



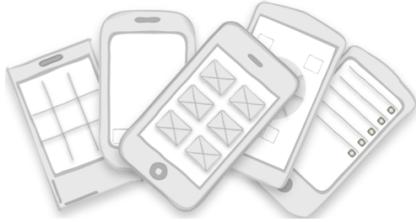


(3) Vista de detalle/edición

- ✗ Donde se consumen o su usan los datos.
- ✗ Visualización, modificación o borrado.

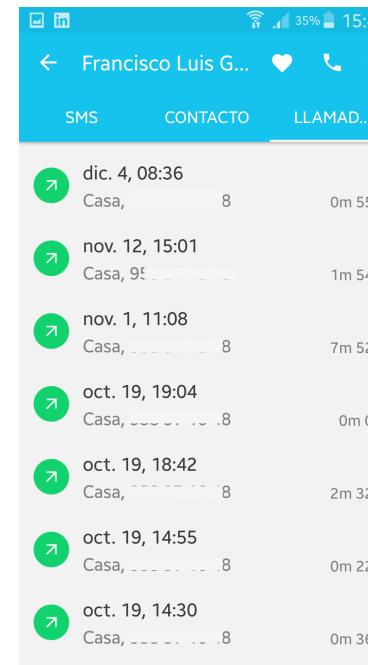
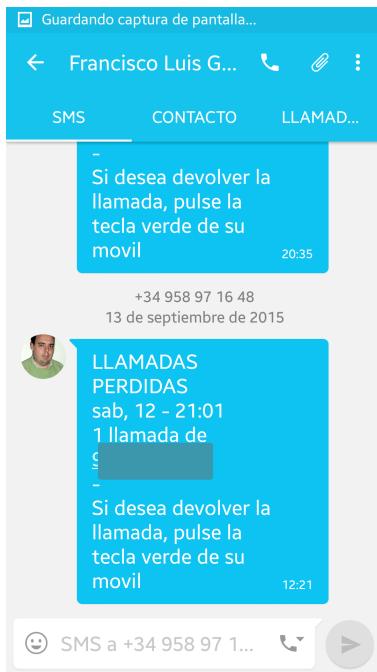
The image contains three screenshots of mobile applications:

- Screenshot 1 (Left):** A Twitter-like interface showing a tweet from "El País Cultura". The tweet content is: "Foro asegura que el 16 de diciembre el Centro Niemeyer tendrá programación. [elpais.com/articulo/cultu...](#) (vía @anitamarcos)". A red arrow points to the end of the tweet text, indicating where it would wrap onto a new line if it were longer.
- Screenshot 2 (Middle):** An Android app store listing for the game "Worms" by Electronic Arts Mobile. The price is listed as "Buy ~£1.88". The screenshot shows the game's cover art and some user reviews.
- Screenshot 3 (Right):** A mobile application for "SEGURIDAD SOCIAL" (Social Security). It shows a form titled "3. ELEGIR FECHA Y HORA" (Select Date and Time) for scheduling a meeting. Fields include "FECHA DE SU CITA" (Date) set to "27/02/2013", "HORA DE SU CITA" (Time) set to "10:40", and "DATOS" (Data) showing "USUARIO S LOGIN PRUEBAS MOVILIDAD" and "619257775". Below this is a "CATEGORÍA" (Category) section for "INSTITUTO NACIONAL DE LA SEGURIDAD SOCIAL Jubilación" and an "OFICINA" (Office) address "Pl. Dr. Tamames, s/n. 28820 - COSLADA". At the bottom is a large blue "CONFIRMAR" (Confirm) button.

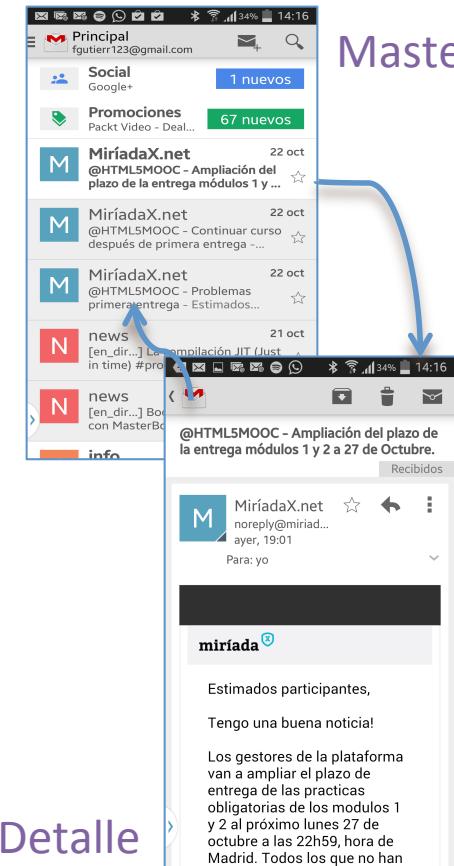


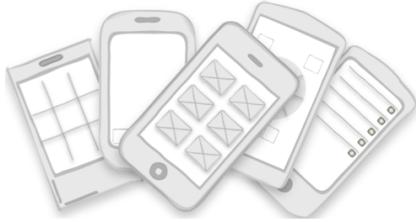
Navegación a bajo nivel

- ✗ Hacer una navegación efectiva entre vistas de detalle.



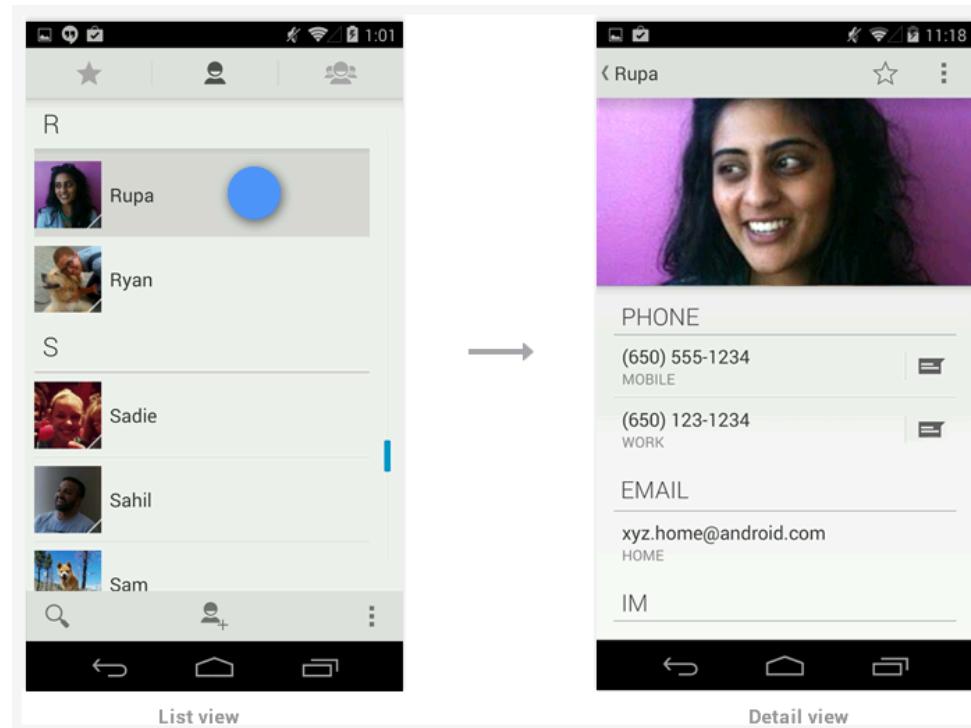
Navegando entre detalles (Tabs)

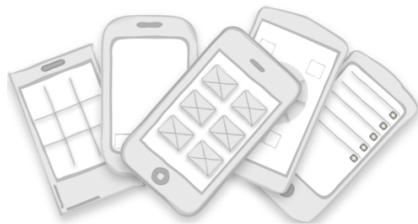




Master-Detalle Fragments

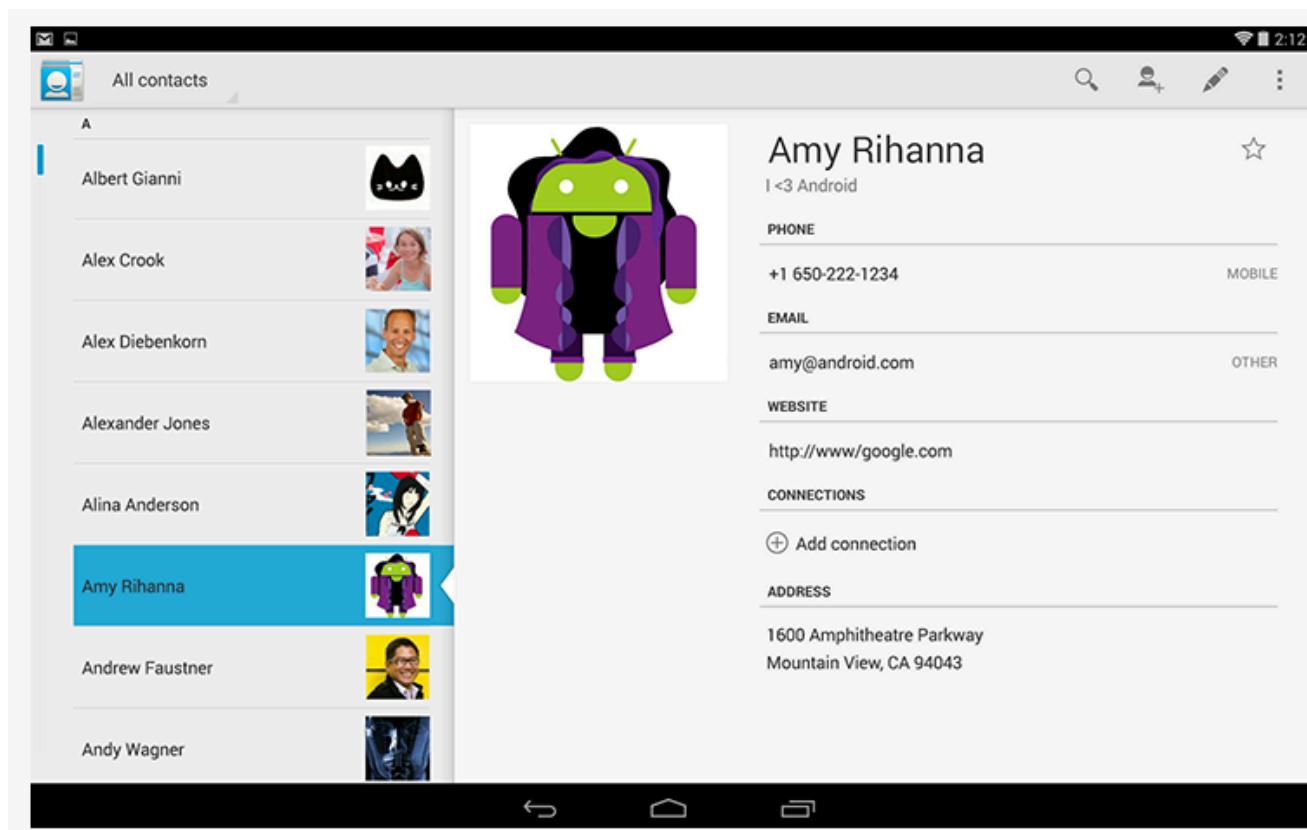
- El uso de “multi-paneles” permite hacer una gestión más eficiente de esta relación.

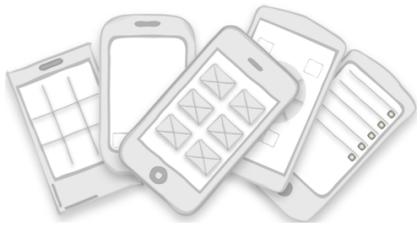




Master-Detalle

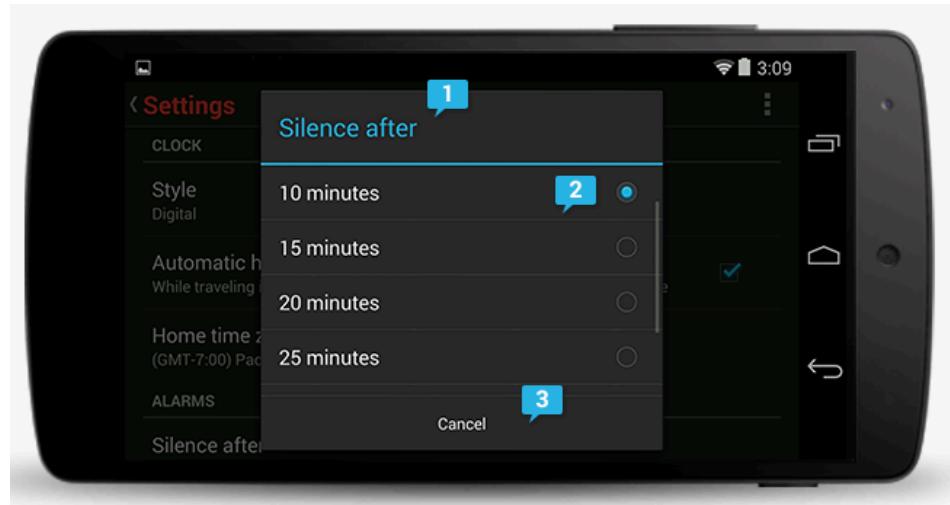
- ✗ El paso a tablets es homogéneo.



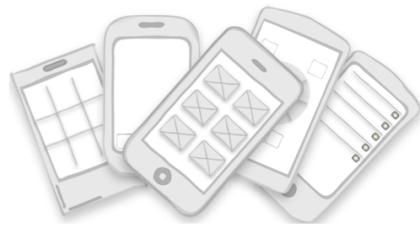


Diálogos

- ✗ Ventana para que el usuario tome un decisión o entre información adicional para la actividad.
- ✗ No llena la pantalla y actúa como un **evento “modal”**



1. Título (opcional)
2. Área de contenido
3. Botones de acción



Dialogo. Botones de acción

- ✗ Izquierda (**Dismissive Action**). Acción que vuelve al usuario al estado anterior.
- ✗ Derecho (**Affirmative Action**). Acción que continua el proceso que lanzó el dialogo.

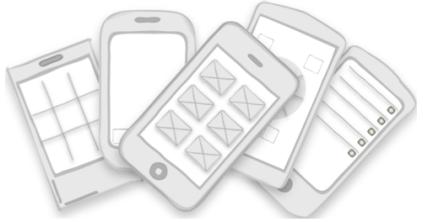
Pick your toppings

Onion	<input type="checkbox"/>
Lettuce	<input checked="" type="checkbox"/>
Tomato	<input checked="" type="checkbox"/>
Cancel	OK

Playlist name

Playlist 1

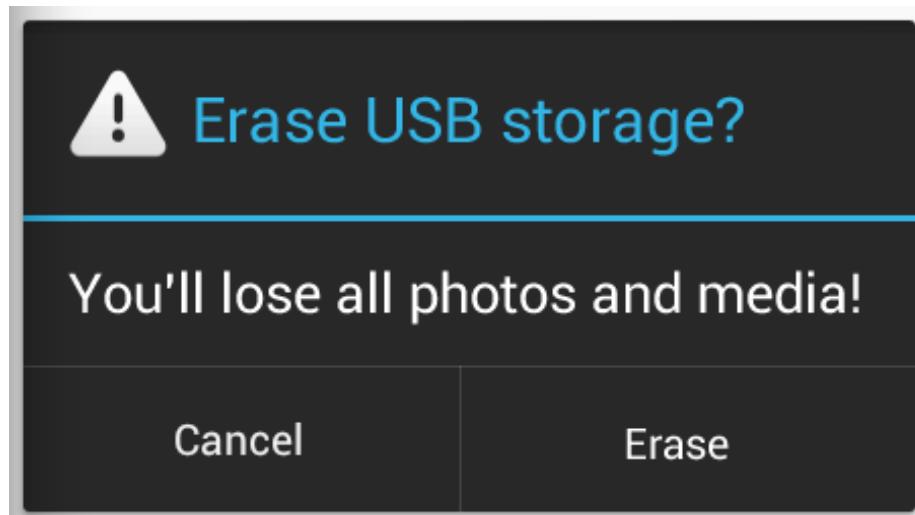
Cancel OK

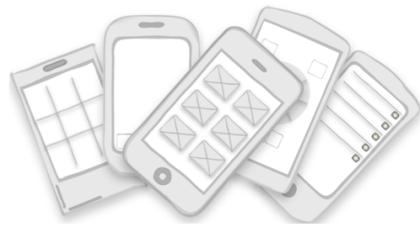


Alertas

AlertDialog

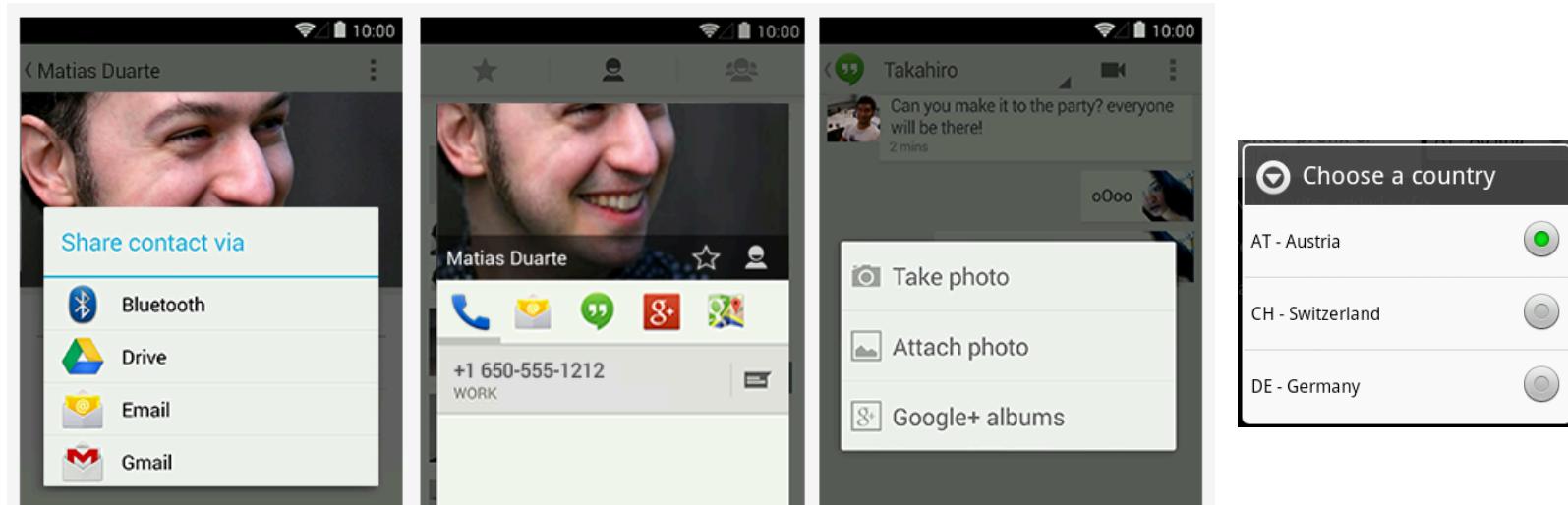
- ✗ Informan al usuario de situaciones que requieren confirmación antes de proceder.
- ✗ Usar para dar más impacto al mensaje

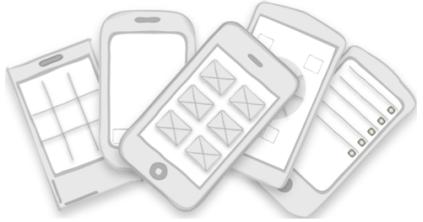




Popup

- ✗ Tipo de dialogo que no requiere selección por parte del usuario.
- ✗ No tiene botones de acción.
- ✗ Se sale pulsando fuera o haciendo selección en el dialogo y entonces avanzamos en el flujo de la tarea.

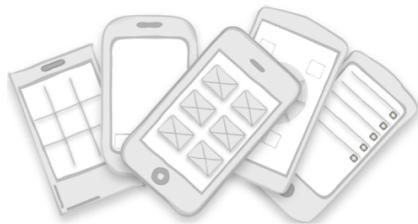




Toast

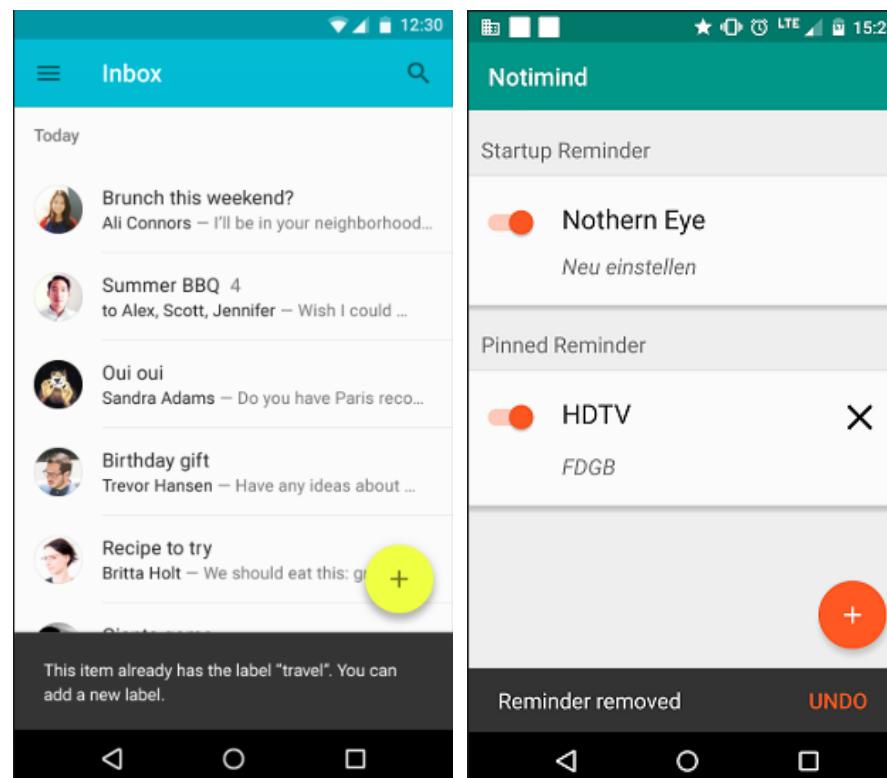
- ✗ Pequeño “popup” para mostrar una realimentación corta y rápida sobre la operación realizada.





Snackbars (MD)

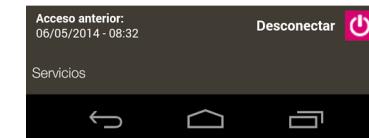
- ✗ Contiene una línea de información sobre la acción actual y un acción asociada.



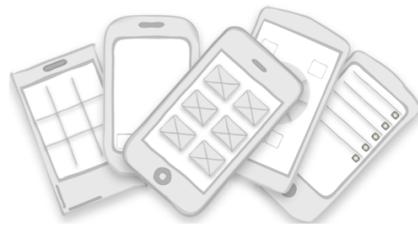


Ejercicio (ejeS5_Nav.pdf)

- ✖ Usar la aplicación móvil que tenga tu banco y analízala desde el punto de vista de la estructura y la navegación.
 - Tipo de aplicación.
 - La información (jerarquía, categorías, detalle, ...) que muestra.
 - Estructuras de navegación usadas.

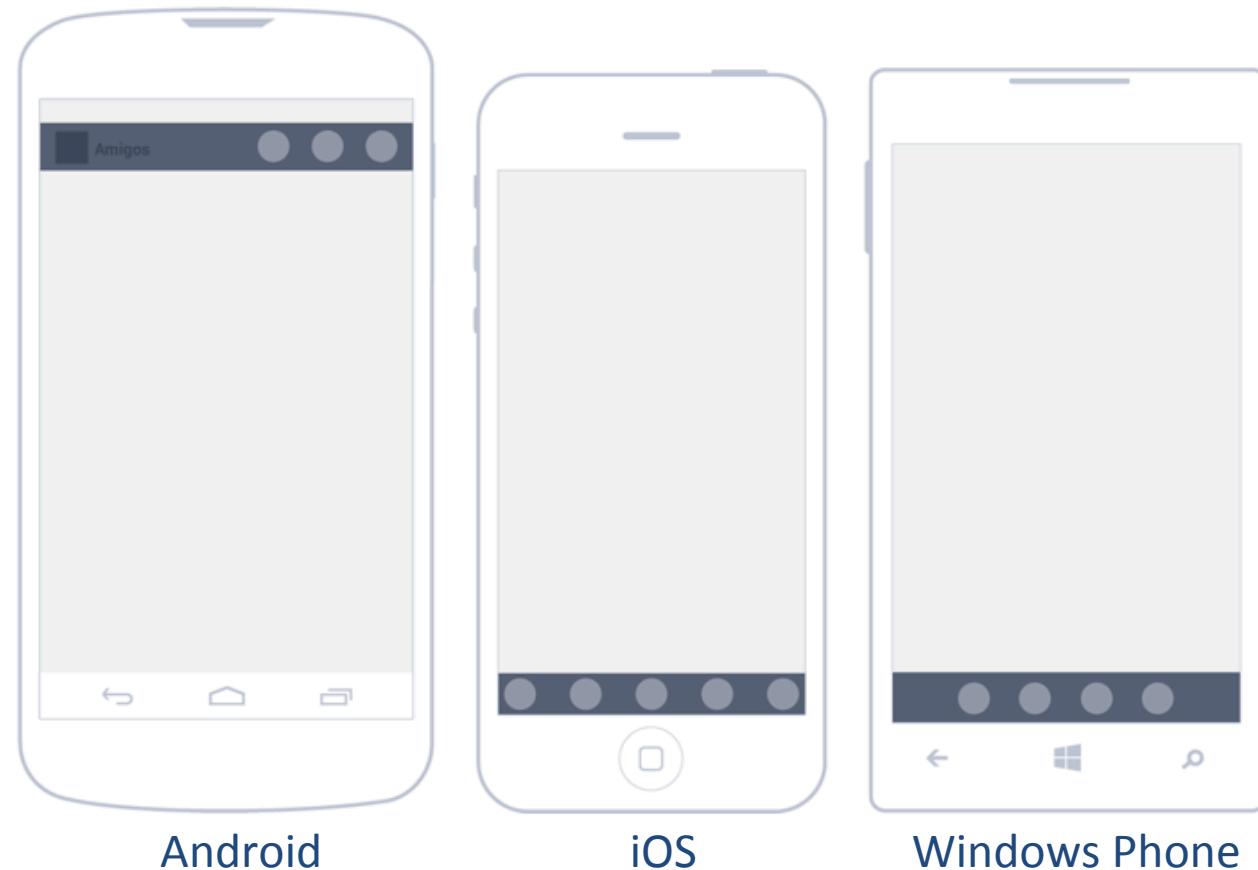


(Incluir capturas de pantalla en el análisis y si consideras que se podría mejorar, indicar cómo? ... realizar bocetos de pantalla ...)



Diferencias entre SO

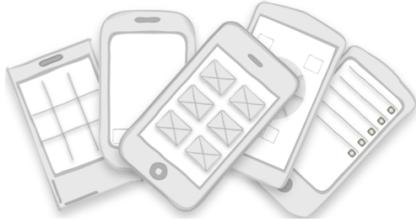
Barra de acción





iOS





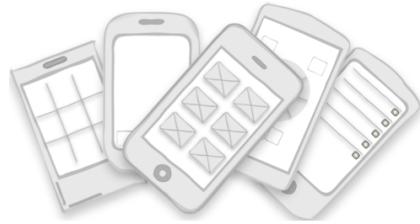
Diferencias entre SO

PortKit: UX Metaphor Equivalents for iOS & Android

The screenshot shows a comparison of three UI components across three platforms:

- Top Row:**
 - iOS 7 UIMenuController:** Shows a menu with "Copy", "Select All", and "Define" options.
 - iOS 6 UIMenuController:** Shows a menu with "Button" and "Button" items.
 - Android PopupMenu:** Shows a menu with "Button 1" and "Button 2" items.
- Resources:** UIMenuController, Popup Menu, android.widget.PopupMenu
- Guide:** UIMenuController
- Bottom Row:**
 - iOS 7 UIPickerView:** Shows a picker with options: "A mobile project", "A web project", "Both", and "Just a chat!". It also includes a note: "Another, even better reason!"
 - iOS 6 UIPickerView:** Shows a picker with options: "Montain View", "Sunnyvale", "Cupertino", "Santa Clara", and "San Jose".
 - Android DatePickers:** Shows a date picker interface with month, day, and year selection fields.
- Resources:** UIPickerView, Pickers
- Guide:** UIPickerView

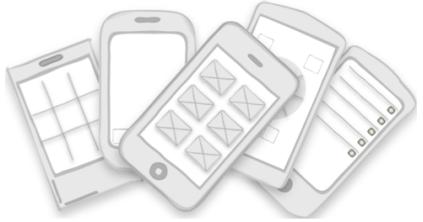
Swad/porkitAndroids_IOS.pdf



Ejercicio ([ejeS5_VF1.pdf](#))

1. ¿Qué sistema de navegación usa **Windows Phone** para substituir a las pestañas?
2. ¿Qué sistema de navegación propone **Windows Phone** para las pantallas de primer nivel de una App?
3. ¿Si en una barra de acción hay más acciones de las que caben en la pantalla como lo gestiona **Windows Phone**?
4. ¿Cómo propone **iOS** la selección múltiple de elementos en una lista?

(*) Buscar en las guías de estilo de Windows Phone y de iOS

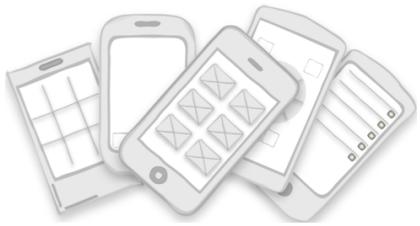


Guías de estilo

- ✗ **Windows.** <https://dev.windows.com/es-es/design>
- ✗ **Android.** <https://developer.android.com/design/index.html>
- ✗ **iOS.** <https://developer.apple.com/library/ios/documentation/userexperience/conceptual/mobilehig/>
- ✗ **Mac OS X.** Designing for Yosemite.
<https://developer.apple.com/library/mac/documentation/UserExperience/Conceptual/OSXHIGuidelines/>
- ✗ **Android Wear.** <http://developer.android.com/intl/es/design/wear/principles.html>
- ✗ **Apple Watch.** <https://developer.apple.com/watch/human-interface-guidelines/>

The image displays three side-by-side screenshots of mobile application design guidelines:

- Android Design:** Shows a landing page with a red callout box highlighting "Material Design". It features two phones and a tablet displaying the Android interface.
- Windows Dev Center:** Shows a "Design" section with a flowchart: "Modern design" → "Start inventing" → "Get the guidelines" → "Get the templates". It includes a "Departures" sign image.
- Apple Watch Human Interface Guidelines:** Shows the title "WATCH Human Interface Guidelines" and a section titled "As you design your Watch apps, understand the foundations on which Apple Watch itself was designed." It features three Apple Watch faces with different complications.



Android Guide

The screenshot shows a web browser window for the Android Developers website (<https://developer.android.com/design/index.html>). The page title is "Diseñar | Android Developers". The navigation bar includes links for INVEST, upf, MUSICA, Series Online, edX, Android, DESSI, T3chFest, Udemy, MDA, COMICS, Trenes, GAMIFICACION, UX, Videojuegos, ACTUALES, Torrent, Billar, UGR, and MUSICA. The main menu has options for DESIGN, DEVELOP, and DISTRIBUTE. A search bar and a developer console link are also present. On the left, a sidebar menu is open under the DESIGN category, showing HOME, DEVELOP, DISTRIBUTE, and PREVIEW. The main content area features a large image of three smartphones displaying the Material Design interface. The text "En marcha gracias a material design" is displayed above the phones. Below the phones, there is a section titled "Lo último" with a downward arrow icon.

Diseñar | Android Developers

INVEST upf MUSICA Series Online edX Android DESSI T3chFest Udemy MDA COMICS Trenes GAMIFICACION UX Videojuegos ACTUALES Torrent Billar UGR MUSICA

Developer Console

ANDROID Developers DESIGN DEVELOP DISTRIBUTE

Search

HOME

DESIGN

DEVELOP

DISTRIBUTE

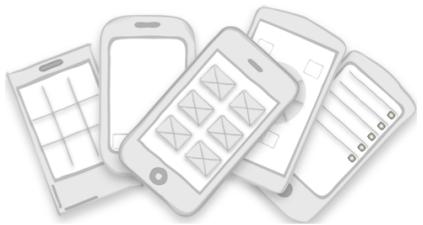
PREVIEW

En marcha gracias a material design

Android usa una metáfora de diseño nueva inspirada en el papel y la tinta, que proporciona un sentido distendido de lo táctil. Para hallar más recursos, visita el sitio de [material design](#).

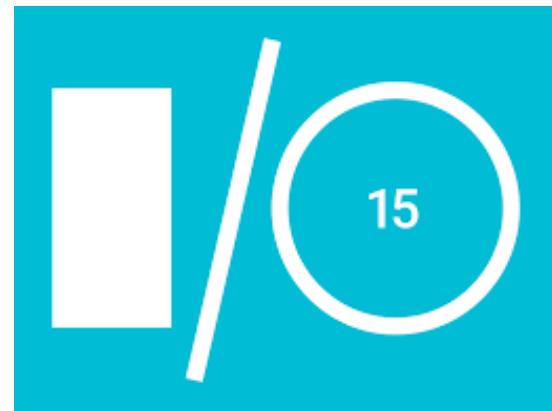
- › Presentación de material design
- › Descargas para diseñadores
- › Artículos

Lo último

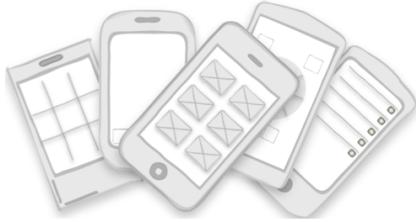


Google I/O

The screenshot shows the official website for Google I/O 2016. At the top left is the I/O logo with the text "May 28 - 29, 2015 Moscone Center West, San Francisco, CA". At the top right are links for "ABOUT", "SCHEDULE", "VIDEOS", "ONSITE", "OFFSITE", and "SIGN IN". The main feature is a video player showing Sundar Pichai speaking, with a "Watch the keynote" button. Below the video is a text box stating: "Google I/O is for developers - the creative coders who are building what's next. Each year, we explore the latest in tech, mobile & beyond." A "WATCH THE KEYNOTE" button is located below this text. At the bottom, there is a "Featured sessions" section with three circular thumbnails showing play icons.



<https://events.google.com/io2016/>



Lectura Recomendada

The screenshot shows the header of the Design Caffeine website. It features a red logo icon resembling a stylized 'C' or 'X' inside a square, followed by the text "DESIGN CAFFEINE". To the right, there is a horizontal menu bar with links for "About", "Portfolio", "Perspective", "Training", and "Articles".

Visual Guide to Android L Material Design: 7 Insights Every Serious Designer Needs to Know

Nov 14th, 2014 by Greg Nudelman

151
Shares



It happened again. In the seemingly never-ending battle of mobile titans, someone moved your skeuomorphic cheese. And this time it was Google, with Android L Material Design. Here are 7 hard-won insights from 4 Material Design workshops I recently facilitated with my top clients in Argentina, Abu Dhabi and United States.

What is Material Design?

Material Design is a new Google design language that Google hopes to port to everything from mobile phones and tablets to websites and desktop apps — in short everything not including wearables (at least not at the moment.) You can get a feel for Material Design by seeing how Material Design transforms the Gmail app:

1. Starting from the current Android 4.4.4 (on the left), we
2. Remove some content complexity
3. De-clutter the action bar, remove the launch icon, and clean up fonts
4. Add standardized spacing on the 8 pixel grid
5. Add color and a substantial amount of vertical space, while also removing the overflow menu
6. And last but not least, we add a FAB (Floating Action Button) ergonomically positioned in the bottom right corner:

[SWAD/VisualGuideMaterialDesign.pdf](#)

Patrones



www.mobile-patterns.com

This screenshot shows the homepage of mobile-patterns.com. It features a large banner for "35 FREE IMAGES" from Bigstock. Below the banner are two sections: "RECENTLY ADDED" and "Instagram (iPhone) notifications, activity". The "RECENTLY ADDED" section lists various mobile applications and their screenshots. The "Instagram (iPhone) notifications, activity" section shows a feed of recent notifications from Instagram users.

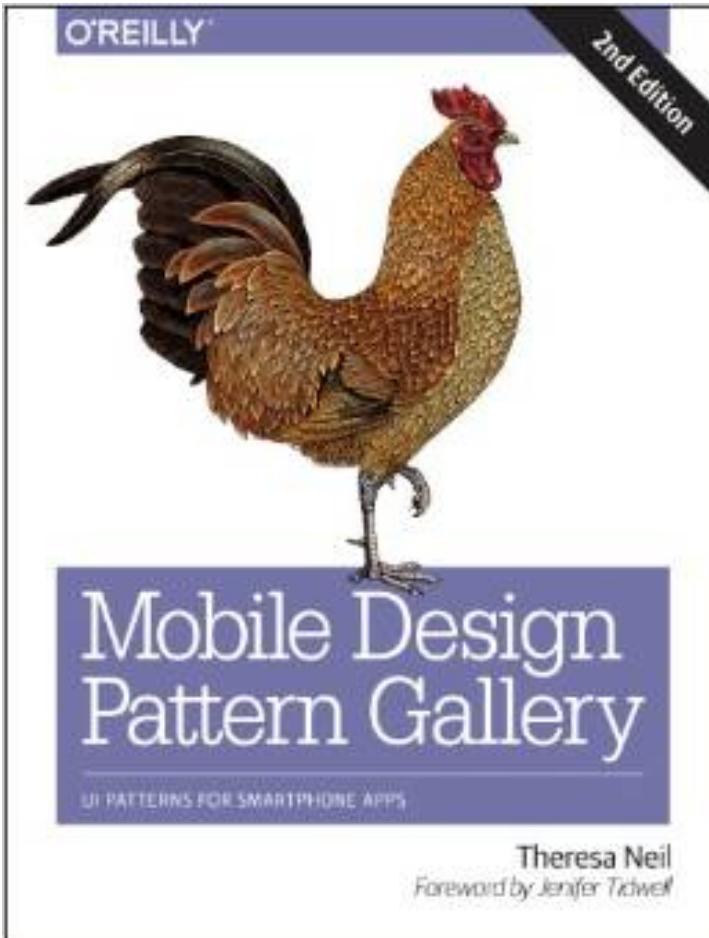
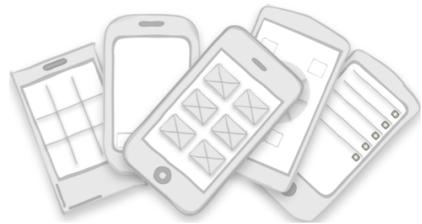
www.mobilepatterns.com

This screenshot shows the "Mobile Patterns" website. The main page has a sidebar with links to "PATTERNS" (Recently Added, Activity Feeds, Forms & Editing, Games, Getting Started, Lists, Maps & Geolocation, Media, Negative States, Personal Analytics, Productivity, Searching, Social, Tabs & Launchers, Travel, Widgets), "RESOURCES" (About, Iconography, Other Pattern Sites), and "All Uis © their respective owners.". Below the sidebar, there is a grid of screenshots for various mobile applications, including Evernote, Path, Amazon Cloud Player, Google Goggles, and Omnidroid.

<http://www.mobilepatterns.com>

<http://www.mobile-patterns.com>

Patrones



FREE DESIGN COURSE BOOK DESIGN PATTERNS CONSULTING WORKSHOPS CODE COMMUNITY ABOUT



Chapter 5: Welcome Experience

May 20, 2014 By admin



5.1 Antipattern: End User License Agreements (EULAs) EULA antipattern in Chase app 5.2 Antipattern: Contact Us Impediments Contact Us Impediments antipattern in the US Bank app Contact Us Impediments antipattern expressed as a long form in the Kodak app 5.3 Antipattern: Sign Up/Sign In Registration Failure: Sign Up/Sign In antipattern in SitOrSquat app 5.4 Pattern: [...]

Filed Under: [Design Patterns](#), [Patterns](#) Tagged With: [antipattern](#), [Contact Us Impediments](#), [End User License Agreements](#), [EULA](#), [Sign In](#), [Sign Up](#), [Tutorial](#), [Watermark](#), [Welcome Animation](#)

Chapter 6: Homescreen

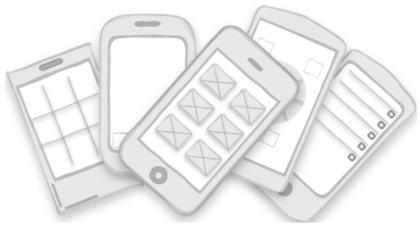
May 19, 2014 By admin



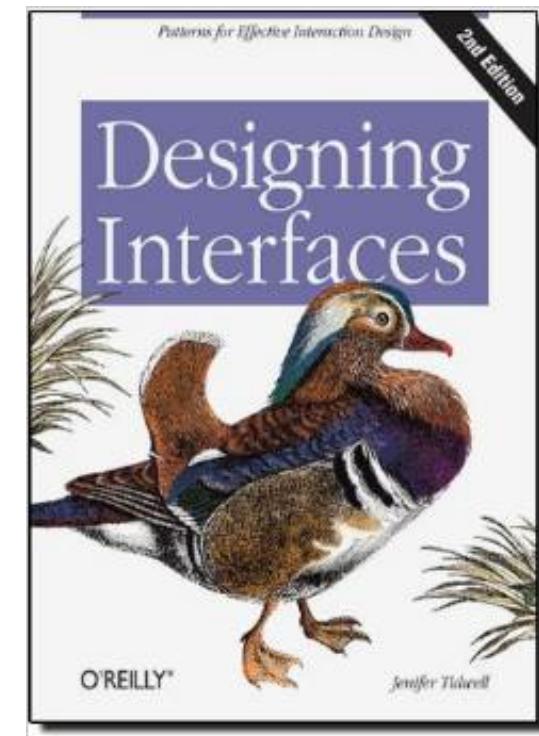
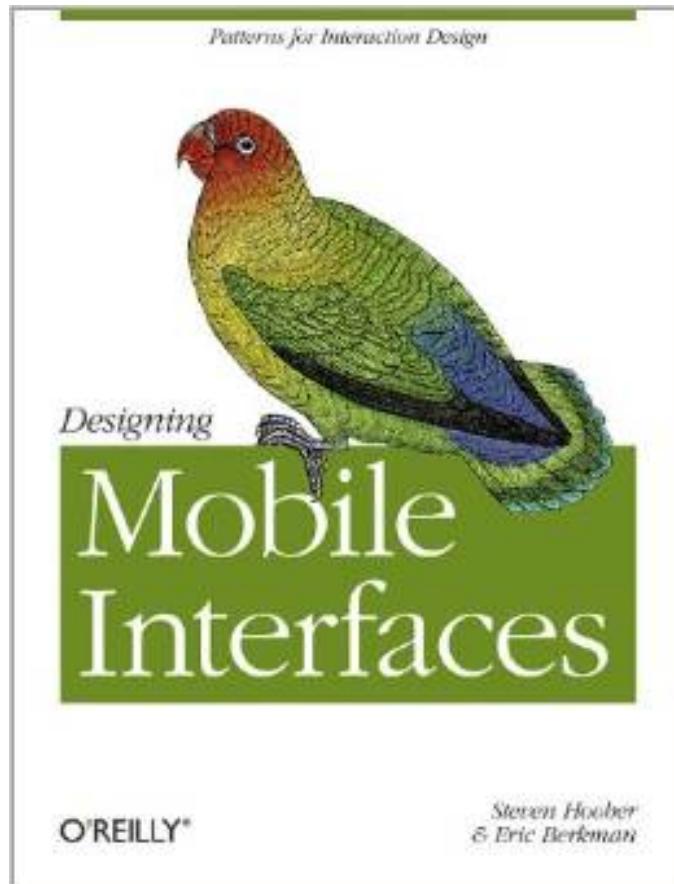
6.1 Pattern: List of Links The Travelocity app uses a typical List of Links pattern. This early version of the Google Plus List of Links tells just a bit more of the story with the number of notifications (though it does not tell you what those notifications are). The Southwest Airlines app shows a grouped [...]

<http://www.androiddesignbook.com/category/design-patterns/>

<http://proquest.safaribooksonline.com/9781449368586?uicode=goliath>

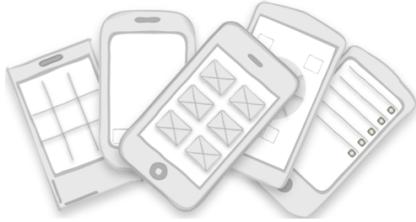


Patrones



<http://proquest.safaribooksonline.com/0596008031?uicode=goliat>

<http://proquest.safaribooksonline.com/9781449318451?uicode=goliat>



Buscar inspiración ...

A collection of screenshots from various Android apps, including Gmail, Google Play, and FlightTrack 5, demonstrating good UI design principles.

<http://androidniceties.tumblr.com>

A website featuring news articles and UI design patterns for mobile applications, specifically for iPhone, iPad, and Android.

<http://inspired-ui.com>

A website dedicated to mobile user interface patterns, featuring a grid of UI examples and a sidebar with links to various pattern categories.

<http://www.pttrns.com>

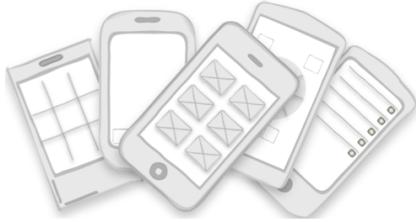


Buscar inspiración ... (MD)

The screenshot shows the materialup website interface. At the top, there's a navigation bar with links for 'INSPIRATION', 'RESOURCES', 'FREEBIES', 'MARKET', and 'COLLECTIONS'. Below the navigation, there's a search bar and a red '+' button. The main content area displays a grid of cards, each featuring a different Material Design application or icon. The cards include:

- Presentation for Drive (by Salomon Aur...)
- Afisha search (in Animations by Slava)
- Uber (in User Interfaces by Pieter Goris)
- Music App For Tv/Pad (by 李响_Xerlee)
- Play Books (in Icons by Kevin Aguilar)
- Be Optimistic ^ ^ (in User Interfaces by Jiaxin Chen)
- SM Music Player (by Raaz Das)
- Webmoney UI App (by thanhloc)
- Signal Android Icon (by Open Whisper Systems)
- Why implementation is crucial to the Floating Action Button (by Parth)

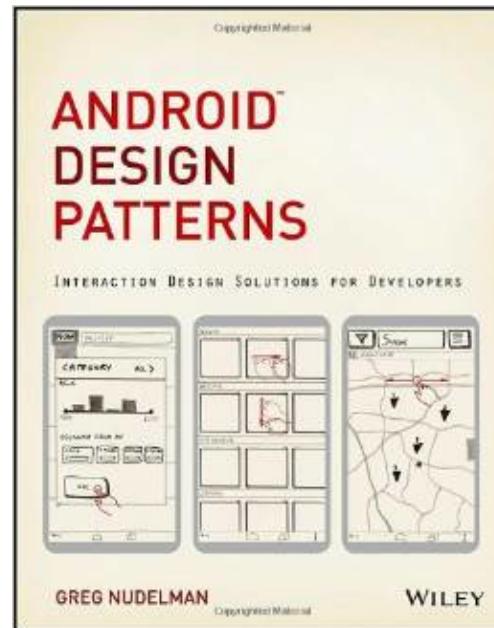
<http://www.materialup.com>



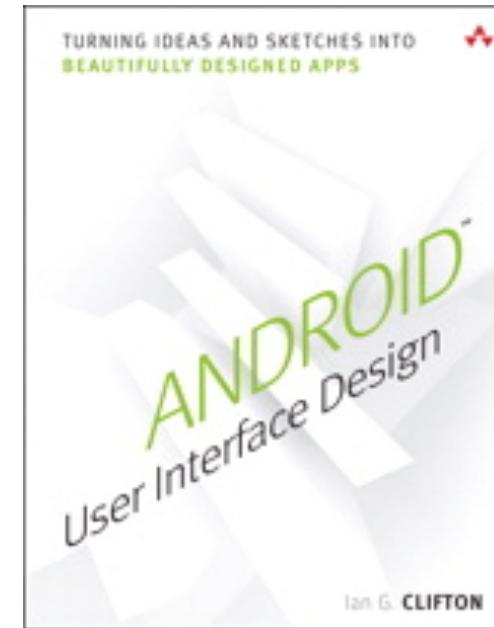
Bibliografía



(1)



(2)

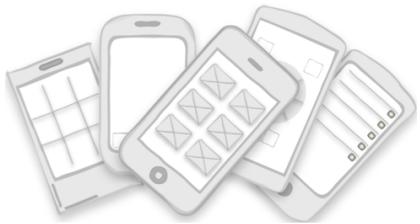


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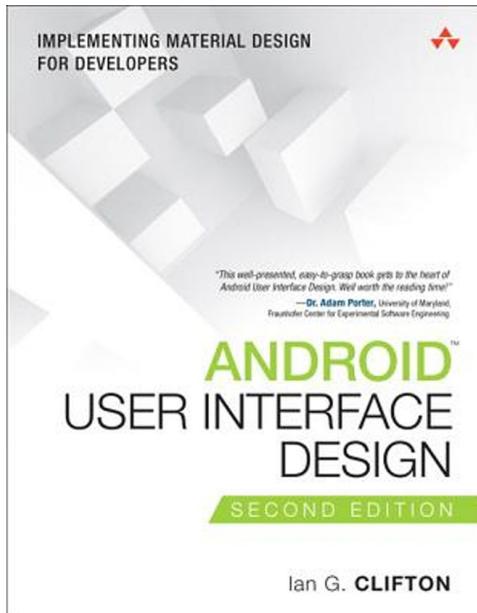
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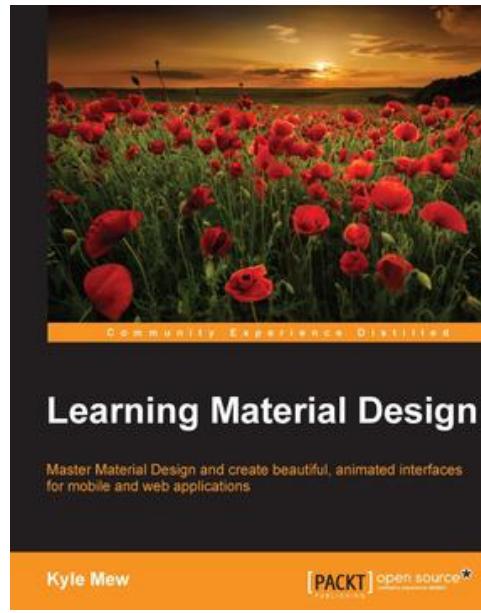
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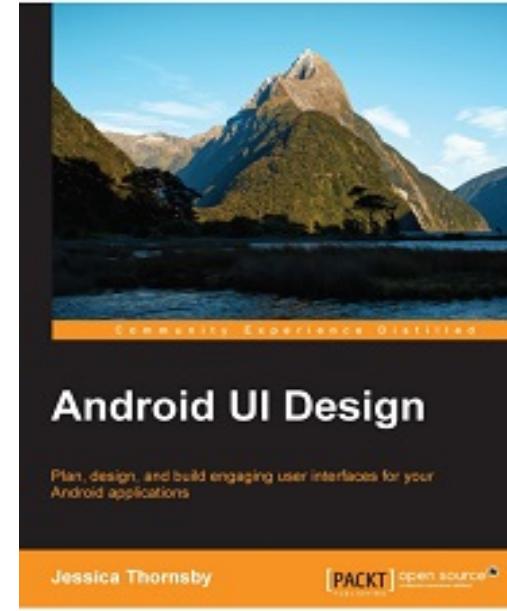
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