

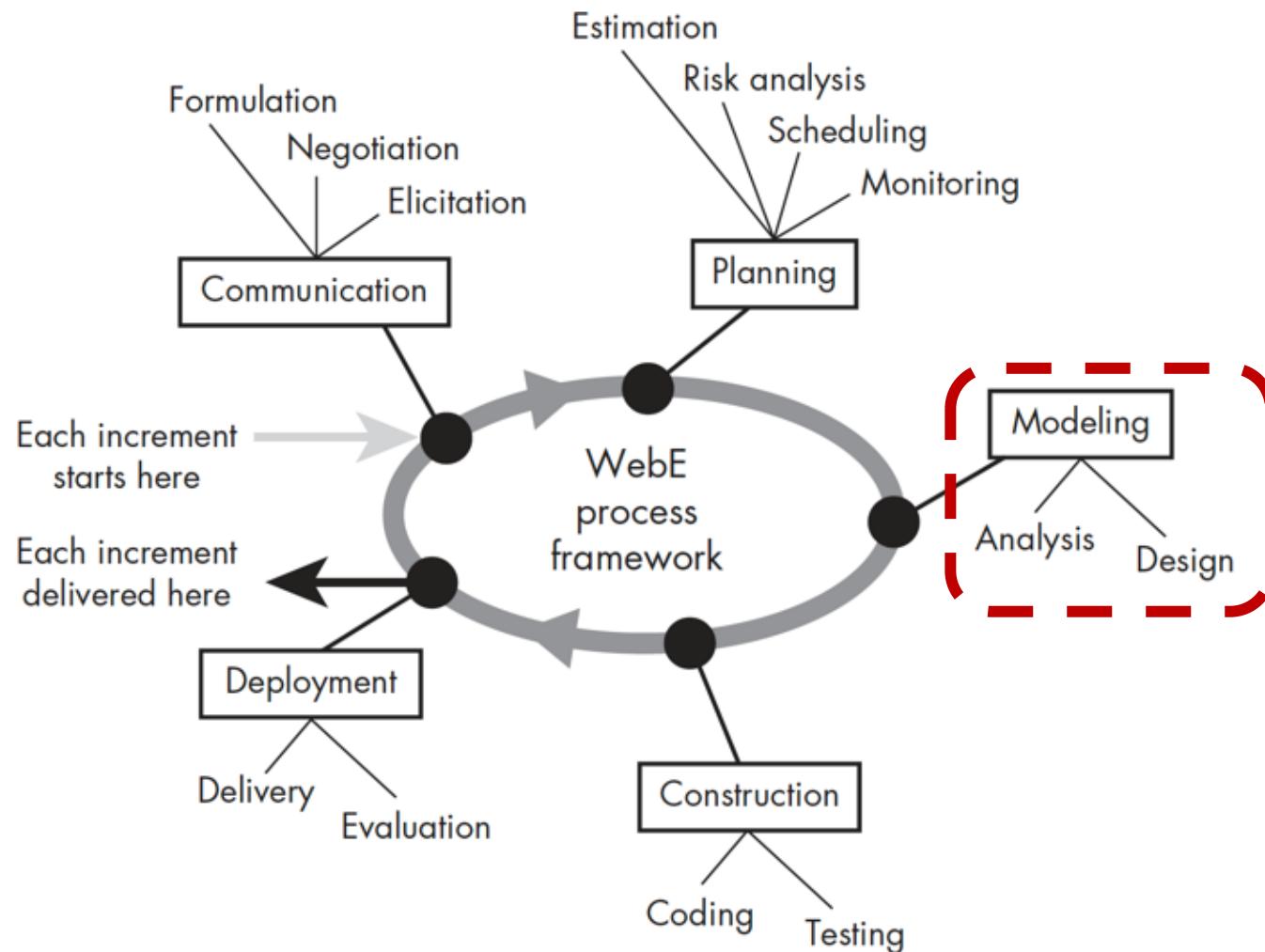


Lección 4.2

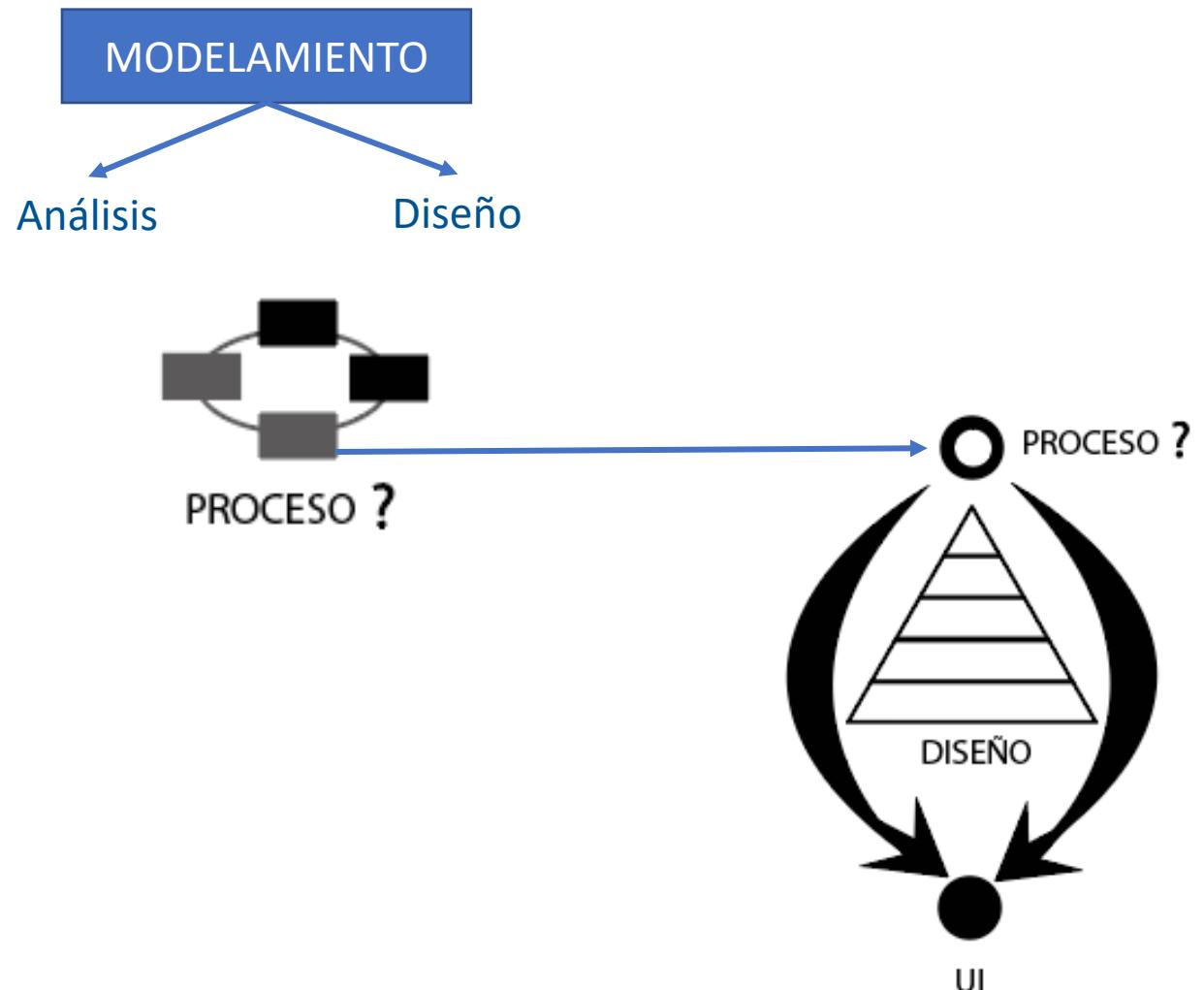
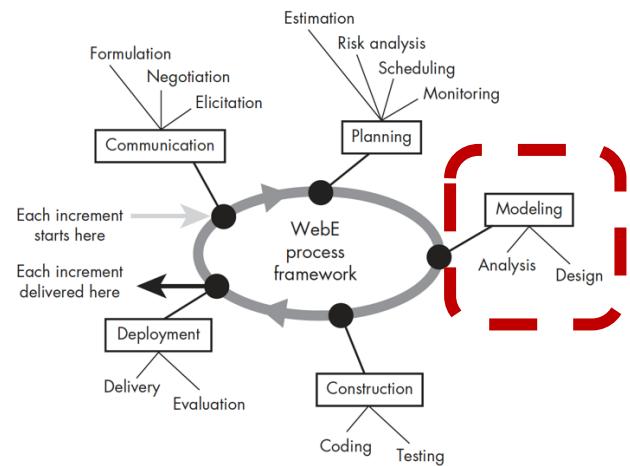
Diseño de la Interfaz de Usuario

Proceso de Ingeniería Web

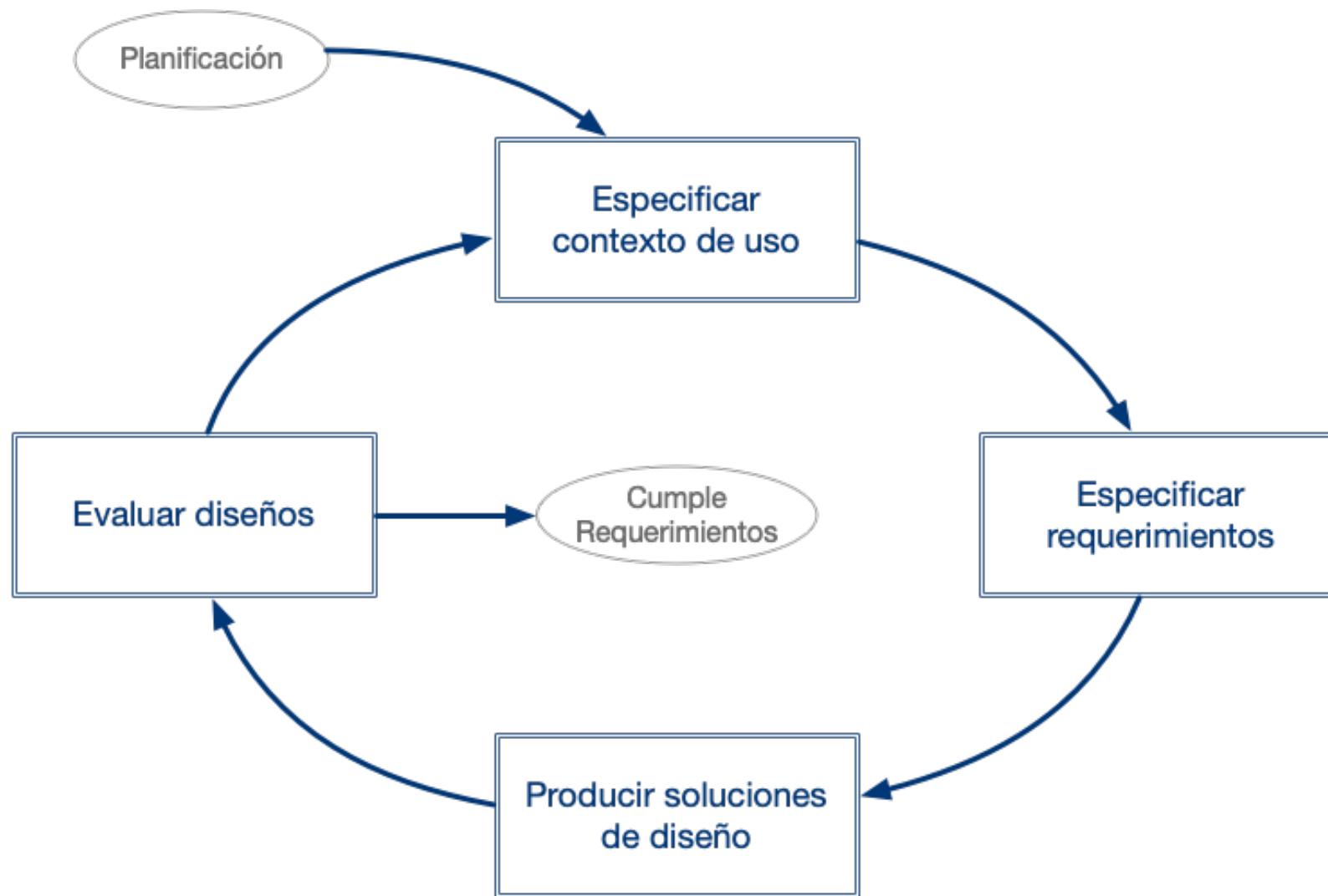
5 actividades



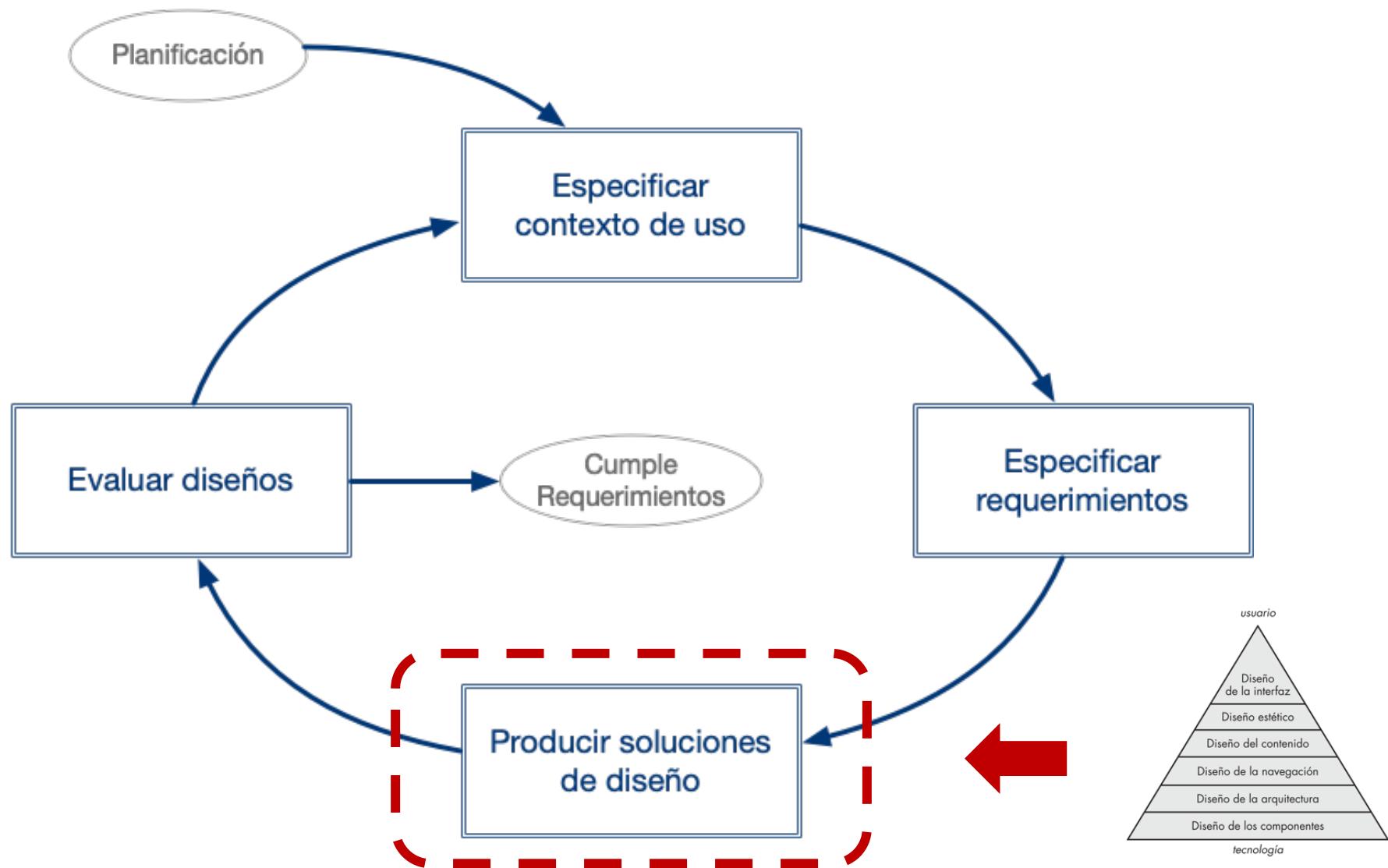
Proceso de Ingeniería Web



El DCU: Enfoque para el diseño de la UI



El DCU: Enfoque para el diseño de la UI



¿Cómo llego?

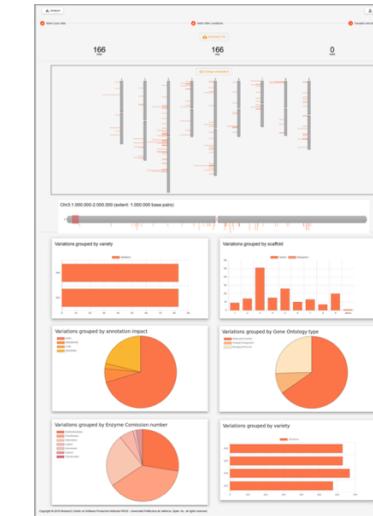
Investigación de Usuario

Fabio

	Please	Used Devices
Age: 40	- Searching for genetic information is like playing with a huge amount of citrus varieties.	Tablet: No
Job title: Researcher	Motivations	Mobile Phone: No
Occupation: Biotechnologist	Support research in the field of applied genetics in citrus	Laptop: Yes
Experience: 8 years	Goals	
	- Identify genetic differences between groups of citrus varieties.	
	Needs	
	- Provide lists of genetic variations of several citrus varieties.	
	- Compare the variations between varieties.	
	- Identify the different variations between variety groups.	
	- Identify the relationship between the varieties with the variations.	
	An ordinary Day in the life of Fabio	
	Fabio enters the genetic laboratory in the morning. Checks which varieties should be studied. It uses Python to read the genomic data and identify the variations. Once the variations are identified, it compares genetic variations between different varieties. Once the variations are identified, it uses the GDS tool to view the region of the genome sequence where the variations of interest are.	

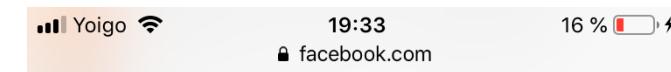
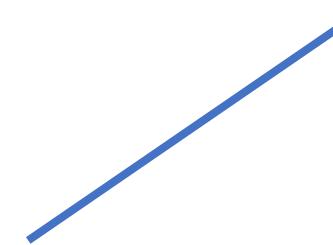


Producción de Soluciones



El diseño no es trivial

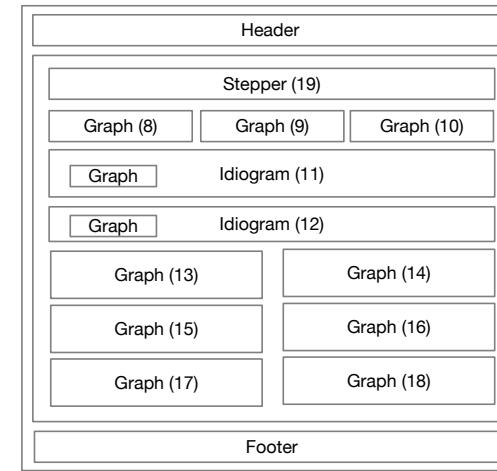
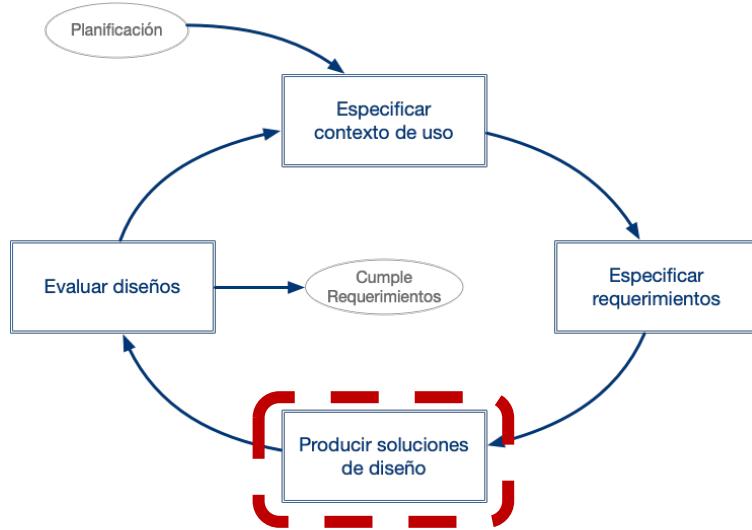
como cuando te dicen “pero si solo es aumentar 7 campos y un botón”



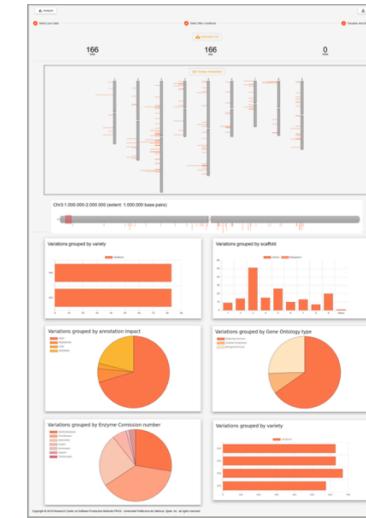
como cuando te dicen "pero si solo es aumentar 7 campos y un botón"



Producir Soluciones de Diseño: Artefactos claves

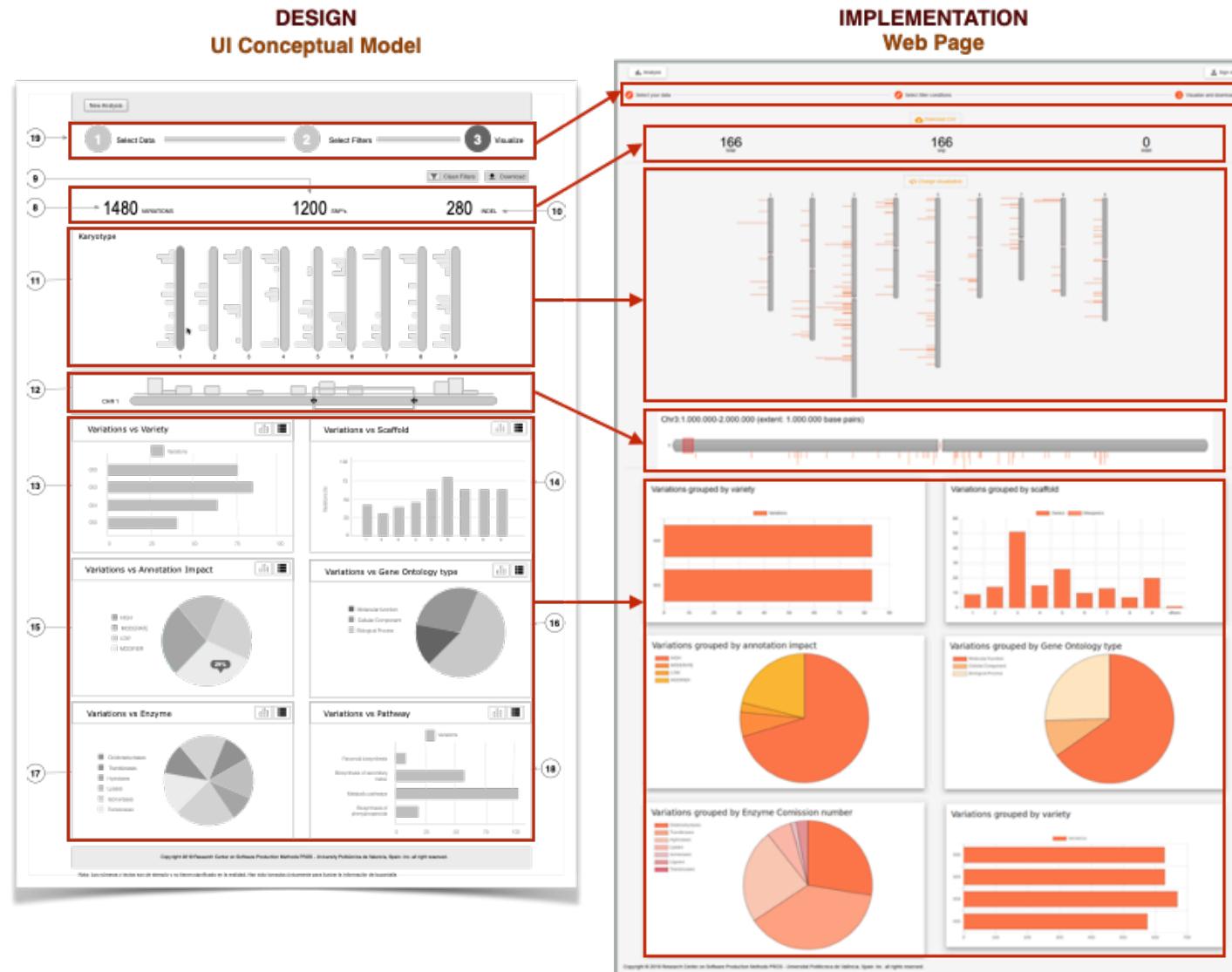


Diseño Conceptual

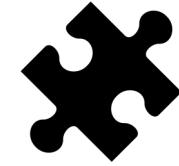
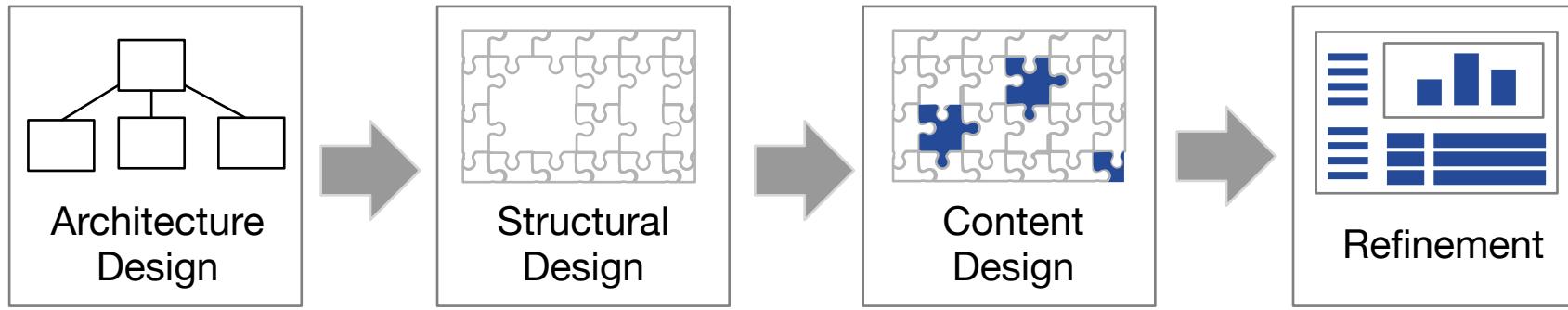


Diseño Físico

Trazabilidad



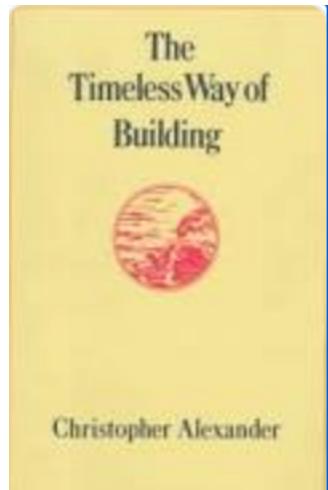
Proceso de Diseño de UI



= Patrón de Diseño de UI

Origen de los Patrones

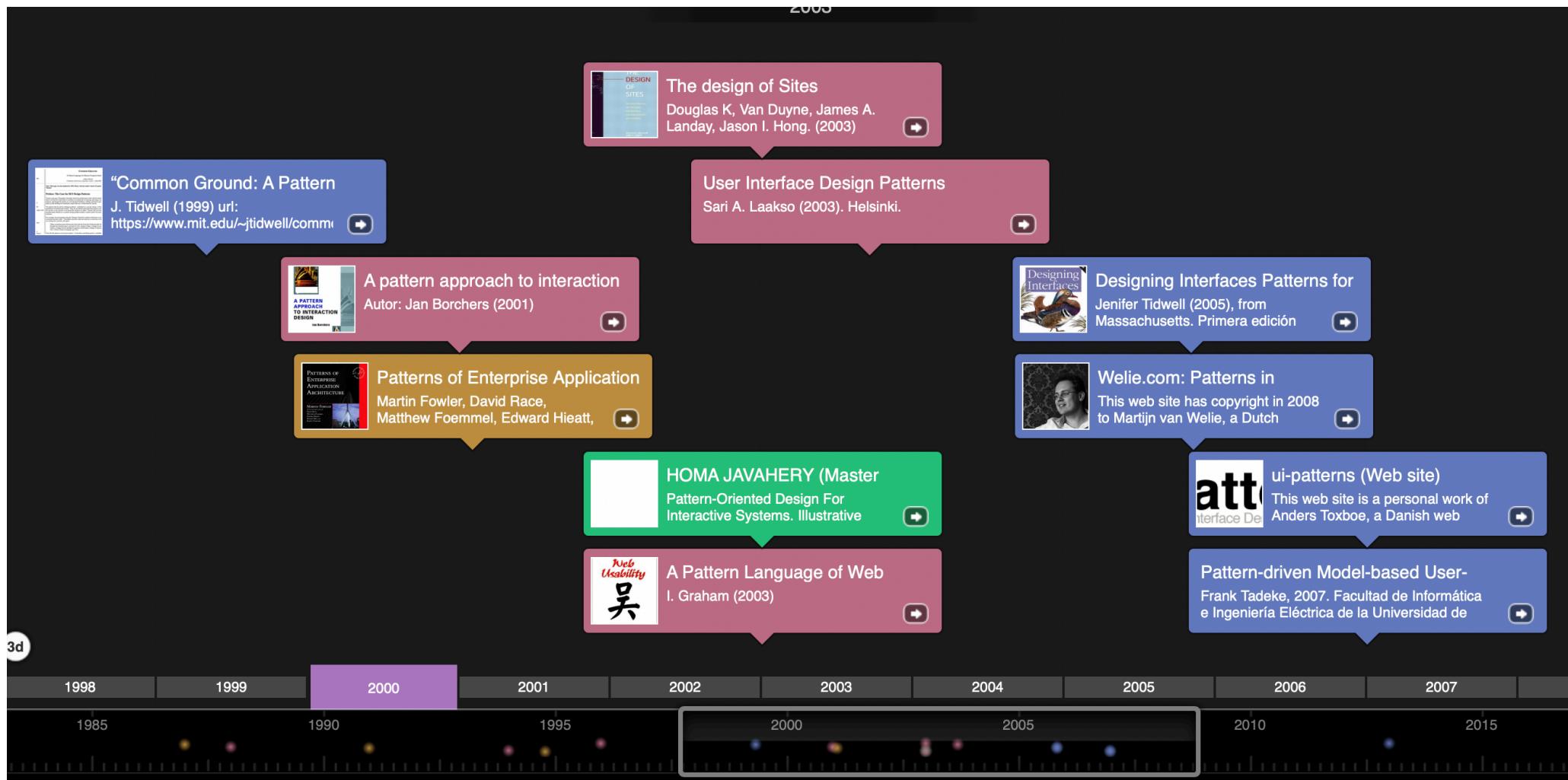
- Área: Arquitectura, Construcción
- Autor: Christopher Alexander
- Libro: The Timeless Way of Building (1979)



Ejemplo



Actividad: Visualizar Historia de los Patrones (TikiToki)



¿Que es un Patrón de UI?

Es una solución de diseño que se emplea de manera recurrente para abordar un problema común de diseño en la interfaz de usuario

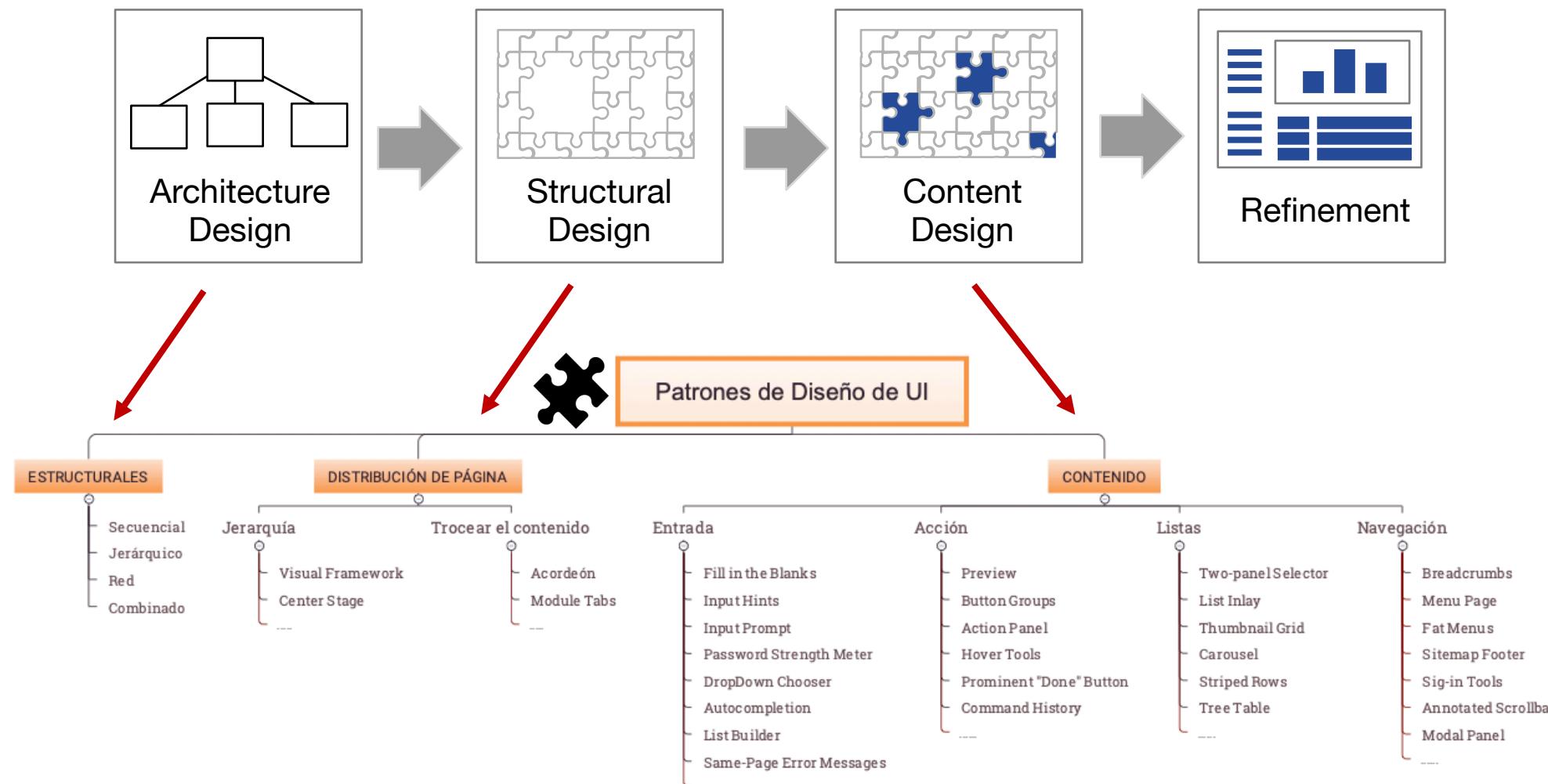
- Ejemplo: Formulario Login

The screenshot shows a login page for Banco Pichincha. At the top right is the bank's logo, "BANCO PICHINCHA". Below it are two input fields: "Usuario" (Username) and "Contraseña" (Password). The password field includes a "MOSTRAR" (Show) button with a small eye icon. A large yellow "Ingresar" (Enter) button is centered below the fields. Below the button are links for forgotten credentials: "¿Olvidaste tu usuario?" and "¿Olvidaste tu contraseña?". Further down, there's a link "Desbloquea tu Banca web". At the bottom, it asks "¿Aún no tienes Banca web?", followed by a "Solicítala ahora" button. A Norton Security logo is at the very bottom.

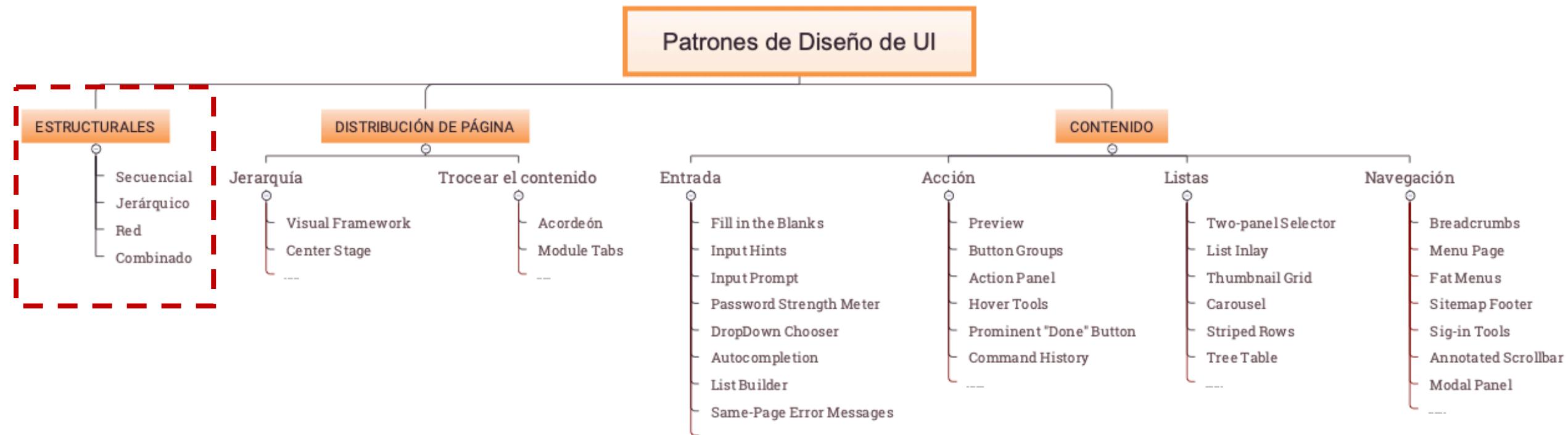
Estructura de un Patrón (Tidwell)

- Nombre
 - Nombre significativo
- Ejemplo
 - Una imagen que captura la solución
- ¿Qué?
 - Descripción del problema
- ¿Cuándo?
 - La situación que da lugar al problema
- ¿Por qué?
 - Mejoras que produce el patrón
- ¿Cómo?
 - Descripción de la Solución
- Nombre: Login
- ¿Qué?
 - Cuando sea necesario, solicita a los usuarios autenticarse usando una combinación de correo y contraseña
- ¿Cuándo?
 - Cuando usuarios frecuentemente retornan a un sitio que usa su información, es conveniente solicitar al usuario ingresar una sola vez su información. Usar la información en las sucesivas visitas futuras al sitio.
- ¿Por qué?
 - Usuarios no les gusta ser interrumpidos por procesos de autenticación
- ¿Cómo?
 - Solicita a los usuarios autenticarse, solo cuando es necesario, usando una combinación de correo electrónico y contraseña

Flujo de trabajo recomendado



Patrones de Estructura



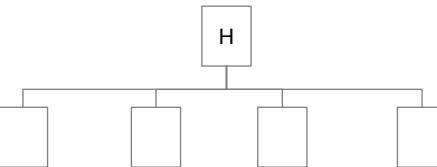
Patrones de Estructura

- Arquitectura de Información es el arte de organizar un espacio de información
- Cosas a pensar:
 - ¿Qué objetos están siendo mostrados a los usuarios?
 - ¿Cómo están organizados y ordenados?
 - ¿Qué se necesita hacer con estos objetos?
 - ¿De cuántas maneras puedes diseñar una presentación de estas cosas y tareas?

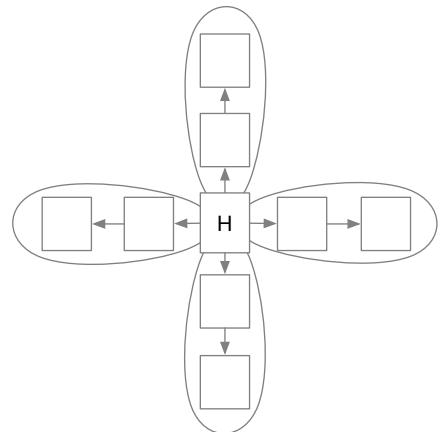
Patrones de Estructura



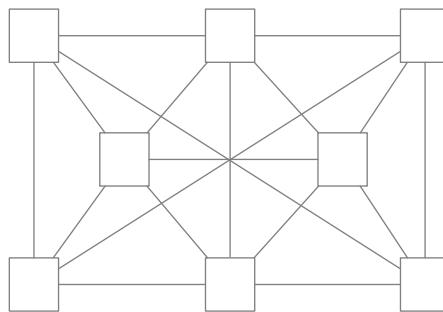
Secuencial



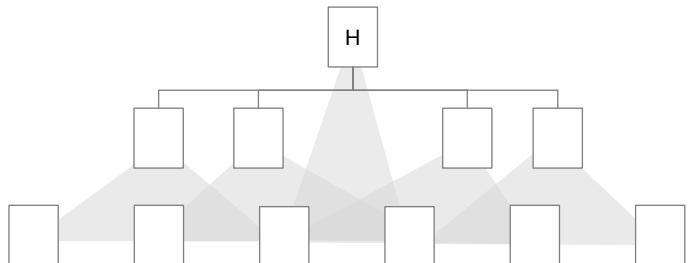
Jerárquico



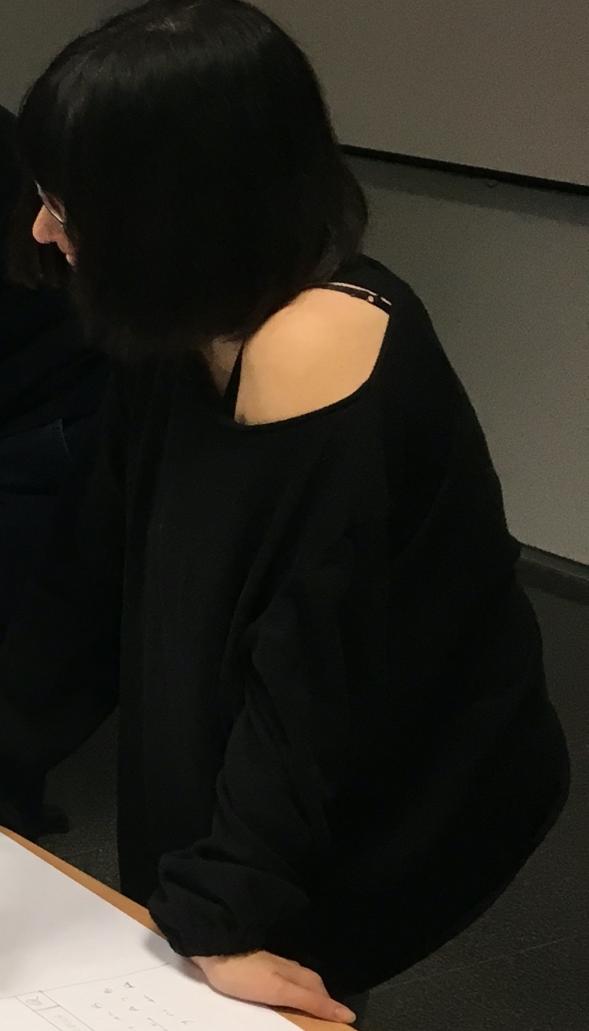
Hub and spoke



Red



Combinado



Patrones de Estructura

Patrón: Secuencial (Wizard)

¿Qué?

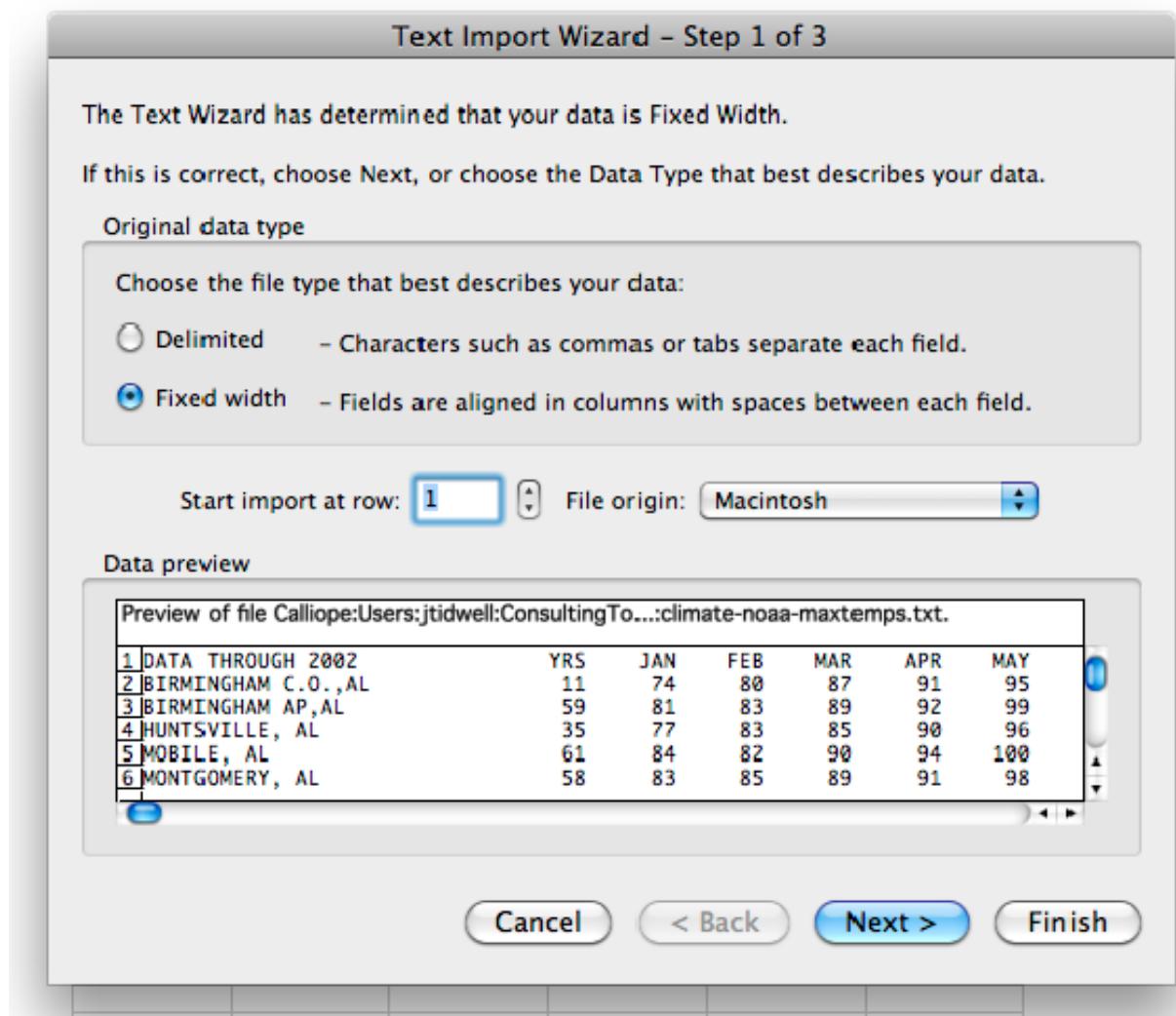
- Guía al usuario paso a paso
- Orden establecido

¿Cuándo?

- Usuarios son novatos
- Tareas= serie de decisiones

¿Por qué?

- Divide y vencerás

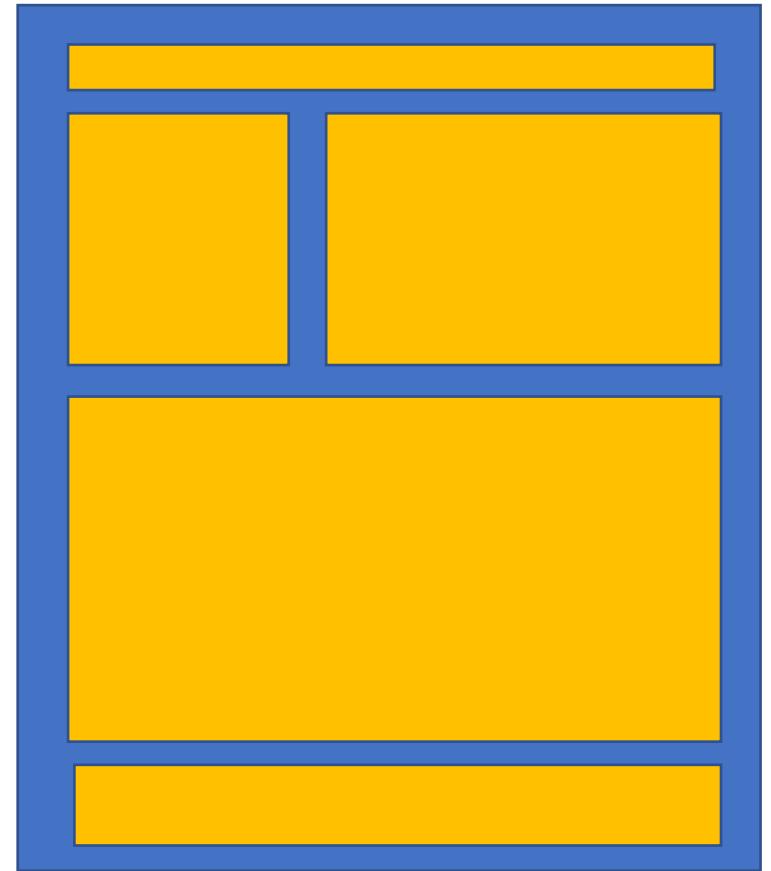


Patrones de Diseño de Distribución de la Página



Patrones de Diseño de Distribución de la Página

- *Page Layout* es el arte de manipular la atención del usuario en una página para expresar significado, secuencia y puntos de interacción.
- Cosas a pensar:
 - ¿Qué debería captar más la atención?
 - ¿Qué cosas tienen menor/mayor atención?



Patrones de Diseño de Distribución de la Página

■ *Conceptos de Percepción*

1. Densidad
2. Color de fondo
3. Ritmo
4. Tamaño y Posición



Figure 4-2. Ways to emphasize blocks of text or small items (clockwise from upper left): density, background color, rhythm, and position and size

Patrones de Diseño de Distribución de la Página

■Leyes Gestalt

Proximidad

Two adjacent promotional boxes for pizza deals. The left box features a large image of a pepperoni pizza with a Pepsi logo, followed by the text: "COLLECTION ONLY Lunch Deal £3.99 1 Italian small pizza Any Canned Drink Only available before 4pm". Below this is a red button with the text "Get this deal ➔". The right box also features a large image of a pizza, followed by the text: "COLLECTION ONLY Pizza Deal £9.99 * 1 Large Pizza Garlic Bread". Below this is another red button with the text "Get this deal ➔". Both boxes include a note at the bottom: "Terms and Conditions apply".

Región Común

A dark promotional page for a Chrysler Ypsilon car offer. On the left, there's a sidebar with "Offers" and "Chrysler Horizon PCP Grand Voyager Offers". The main content area features a red Chrysler Ypsilon car with the text: "CHRYSLER YPSILON 5-DOOR CITY CAR AVAILABLE WITH 0% APR REPRESENTATIVE ON HIRE PURCHASE. T&CS APPLY*". Below the car is a table with the following data:

Model	Ypsilon 1.2 S
On the Road Price	£10,750
Customer Deposit	£0
Amount of Credit	£10,750
Monthly Payment	£179
Total Amount Payable by Customer	£10,750
Duration of Contract	60
Rate of Interest (Fixed)	0.00%
0% APR Representative	

At the bottom, there's a note: "Promotion available on new Ypsilon models registered before 30th June 2014. 0% APR Hire Purchase available for up to a 5 year term. Finance subject to status. Guarantees may be required. Terms and Conditions apply. Chrysler Financial Services, PO BOX 4465, Slough, SL1 0RW." and a link: "Click to find your nearest Chrysler dealer".

copyright: fairUse

Cierre



Similaridad

A screenshot of a McDonald's website. At the top is a purple navigation bar with the McDonald's "M" logo and the slogan "I'm lovin' it". Below the bar are several menu items: FOOD, PROMOTIONS, RESTAURANTS, PEOPLE, OUR WORLD, FOOTBALL, ABOUT US, and CONTACT US. To the right of the menu, there are links for "Join the team", "Meet our people", "Schools & students", and "Franchising". At the bottom right of the purple bar, it says "copyright: fairUse".

Patrones de Diseño de Distribución de la Página

Patrón: Visual Framework

¿Qué?

- Aplicar misma gama
- Diseño flexible

¿Cuándo?

- Existen varias páginas
- Quieres facilidad de usar y navegar

¿Por qué?

- Mejora consistencia
- Fácil de aprender

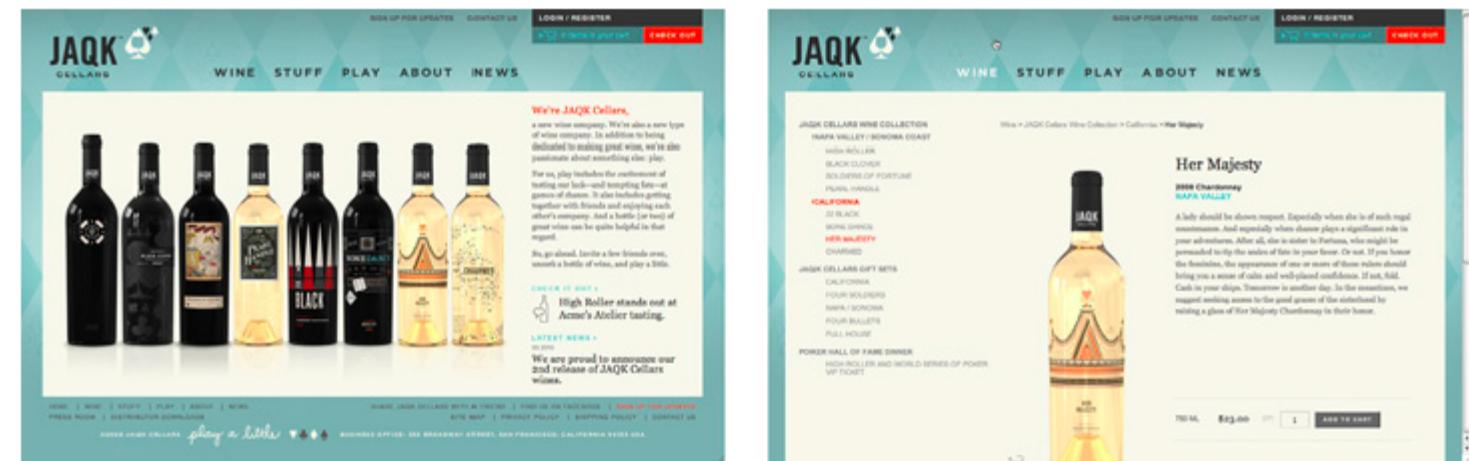


Figure 4-15. JAQK

Patrones de Diseño de Distribución de la Página

Patrón: Acordeon

¿Qué?

- Modulariza contenido en pilas colineales que abren y cierran

¿Cuándo?

- Contenidos heterogéneos
- Poco espacio
- Ver módulos al mismo tiempo

¿Por qué?

- Su uso es común
- Fácil manejo
- No sobrecarga la página con contenido

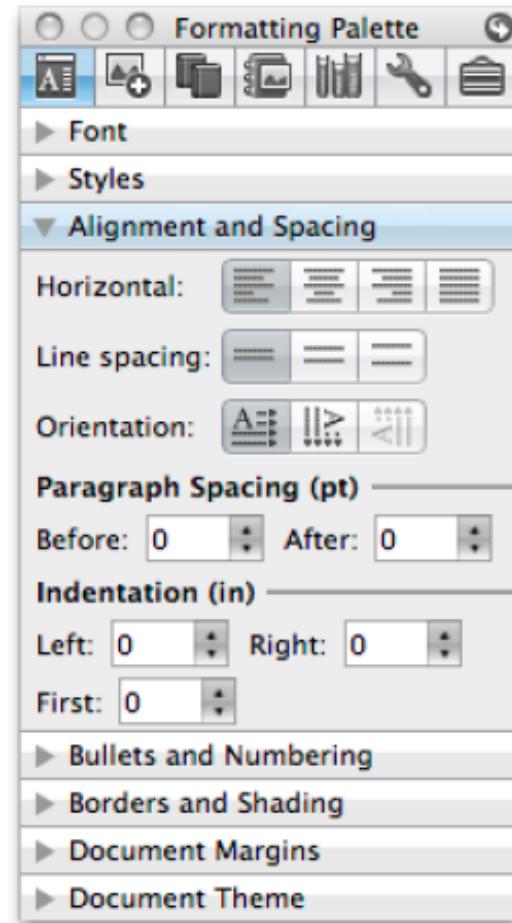
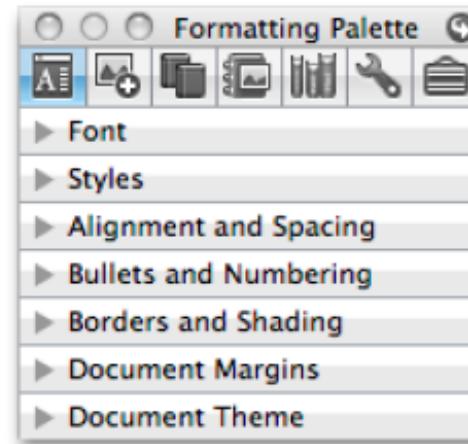


Figure 4-35. Word palette

Patrones de Diseño de Distribución de la Página

Patrón: Module Tabs

¿Qué?

- Áreas pequeñas con lengüetas

¿Cuándo?

- Contenidos heterogéneos
- Poco espacio
- Ver módulos uno a la vez

¿Por qué?

- Su uso es común
- Fácil manejo
- No sobrecarga la página con contenido

The screenshot shows the MapQuest website interface. At the top, there are three tabs: 'Maps' (which is highlighted in blue), 'Directions', and 'What's New'. Below the tabs, there are several input fields and buttons. On the left, there is a green 'Get a Map' button and a dropdown menu set to 'International: US & Canada'. Next to it is a 'Find a Business (optional)' field with a placeholder 'e.g., Best Western or Hotel' and a search icon. To the right is a 'Your Recent Locations' section with a 'Clear All' link and a question mark icon. Below these are fields for 'Address or Intersection', 'City', 'State', and 'Zip Code'. At the bottom left is a 'Use Copy and Paste Forms' link, and at the bottom right is a large blue 'Get Map' button.

Figure 4-31. MapQuest

Patrones de Contenido



Patrones de Contenido



Patrones de Contenido: Entrada

Fill in the Blanks

A screenshot of a 'Foreign Exchange' input field. It shows two dropdown menus: one for selecting a currency ('One Europe Euro') and another for selecting a target currency ('in U.S. Dollar').

Figure 8-7. *The New York Times*

Input Prompt

A screenshot of an 'Name' input field. It contains two sub-fields: 'First Name' and 'Last Name'.

Figure 8-15. *Yahoo!* registration page

Input Hints

A screenshot of the Twitter registration page. It features two input fields: 'Full name' and 'Username'. Below each field is a descriptive hint: 'Your full name will appear on your public profile' for the name field and 'Your public profile: http://twitter.com/ USERNAME' for the username field.

Figure 8-10. *Twitter* registration page

Password Strength Meter

A screenshot of the Gmail registration page. It includes a 'Choose a password:' field containing a series of asterisks, a note 'Minimum of 8 characters in length.', and a 'Password strength:' meter indicating 'Good' status.

Figure 8-18. *Gmail* registration page

Patrones de Contenido: Entrada

Same-Page Error Messages



Figure 8-35. Netflix registration box

Autocompletion

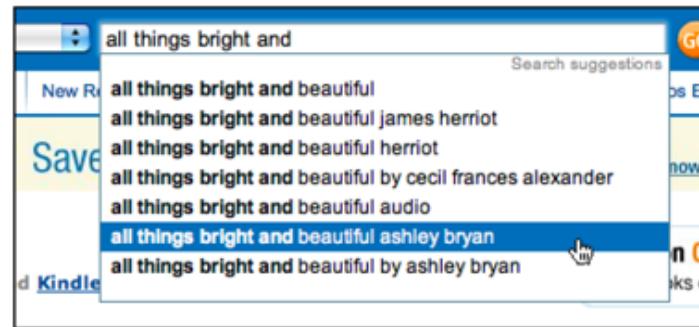
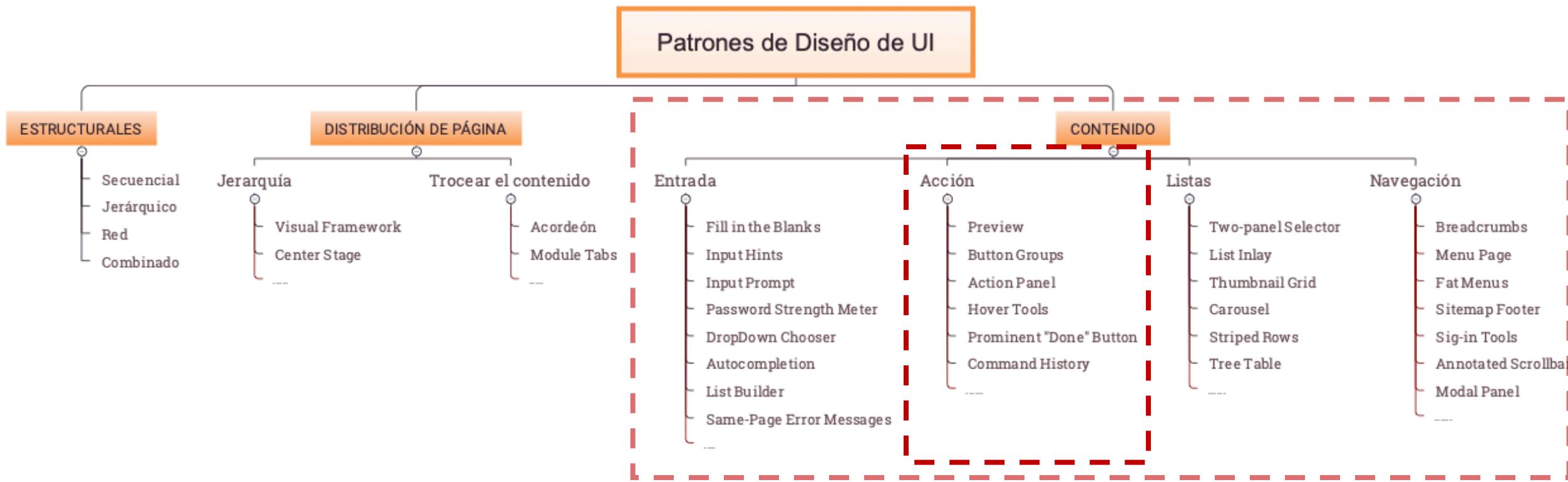


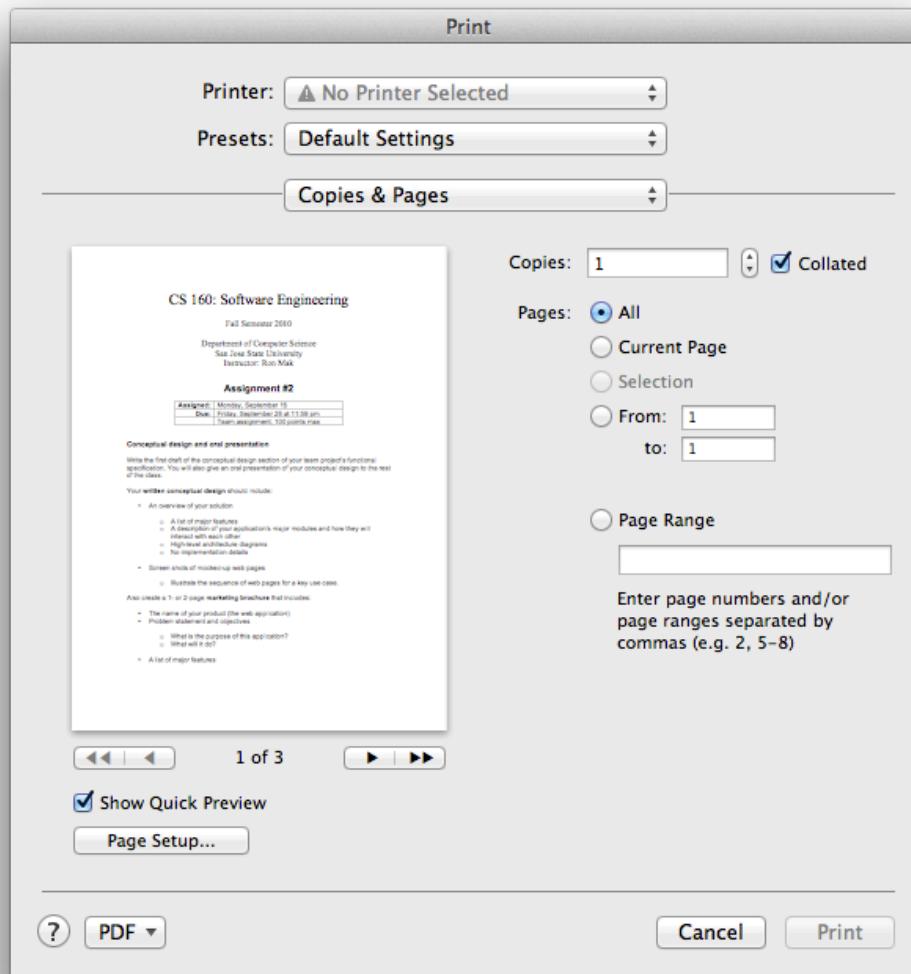
Figure 8-22. Amazon

Patrones de Contenido



Patrones de Contenido: Acciones

Preview



Button Groups

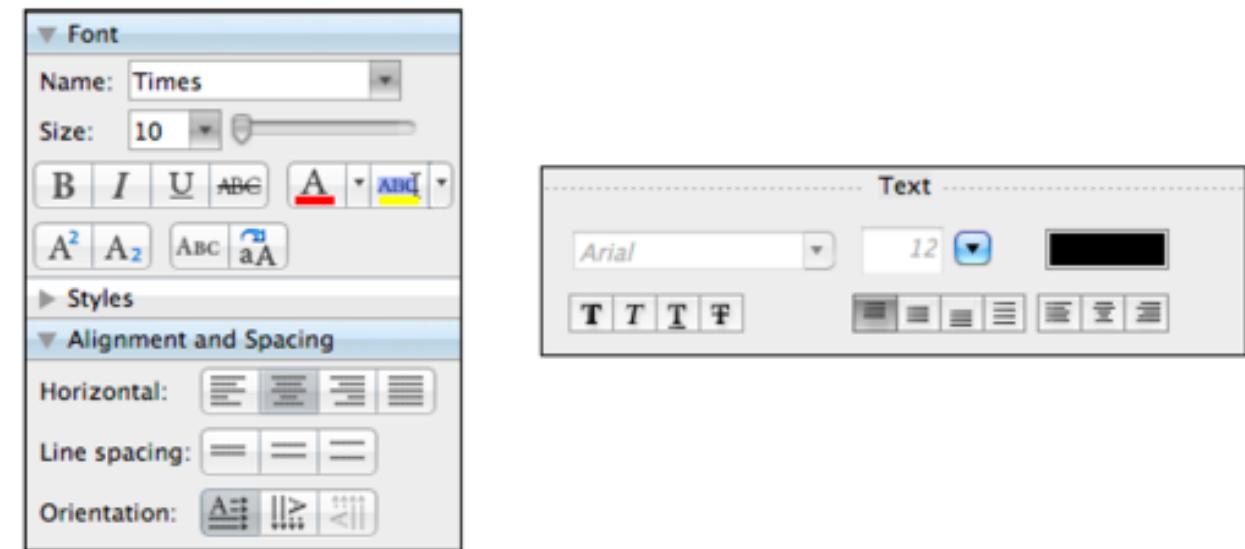


Figure 6-4. Microsoft Word and Adobe Flash Builder

Patrones de Contenido: Acciones

Hover Tools

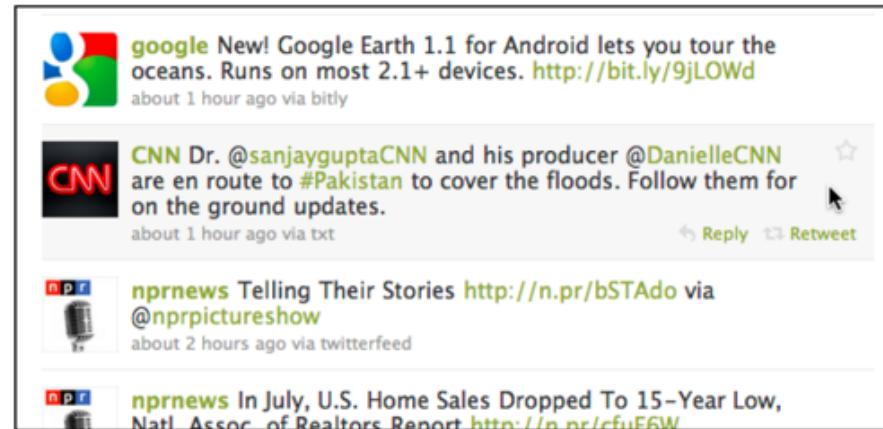
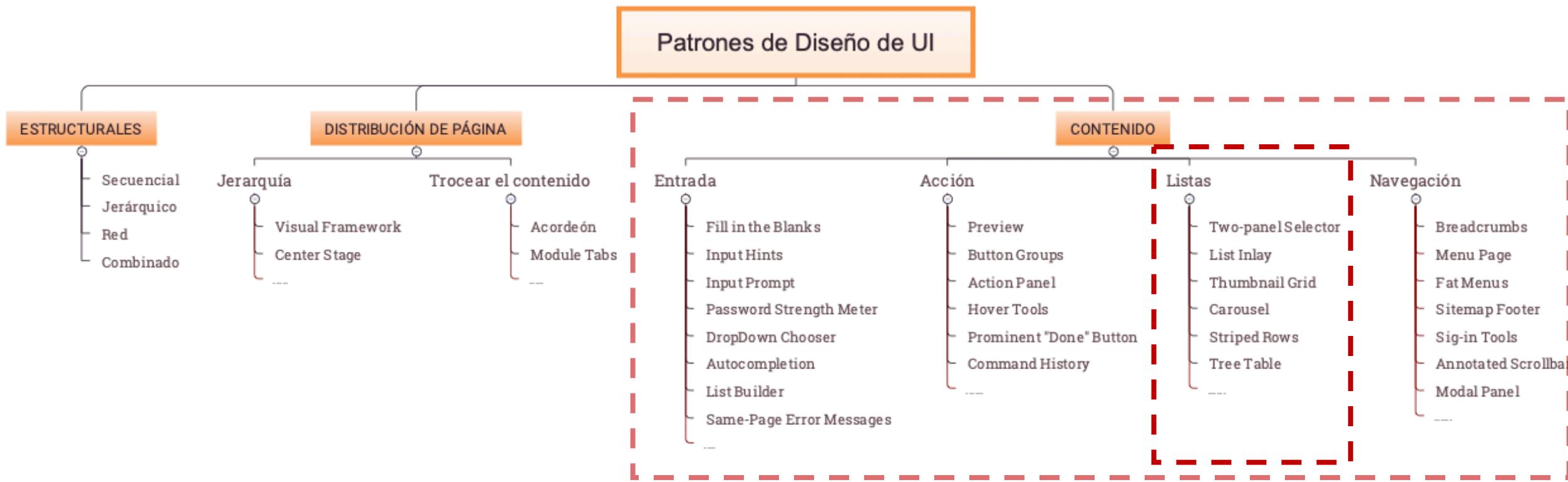


Figure 6-6. Twitter

Action Panel



Patrones de Contenido



Patrones de Contenido: Listas

Carousel

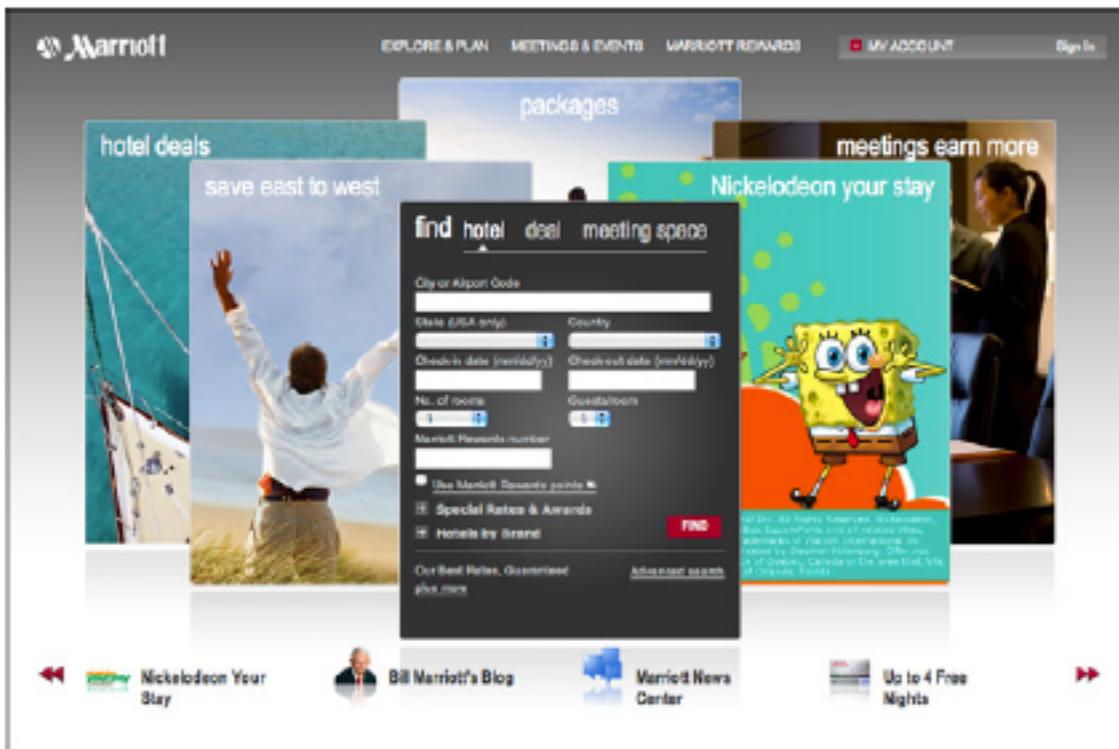


Figure 5-16. Marriott

Thumbnail Grid

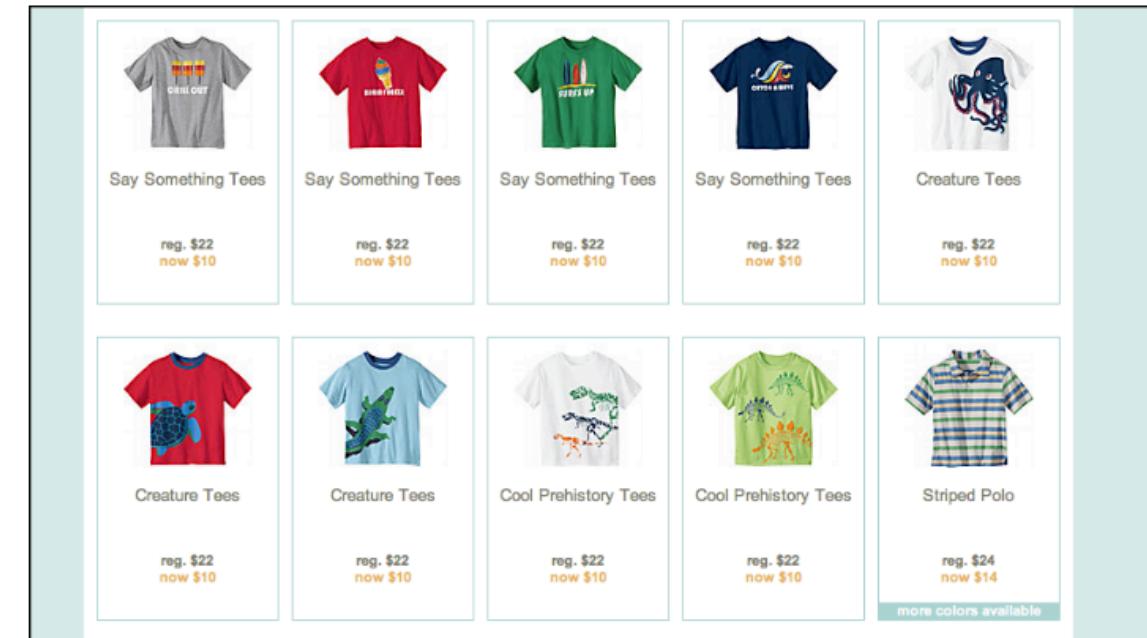
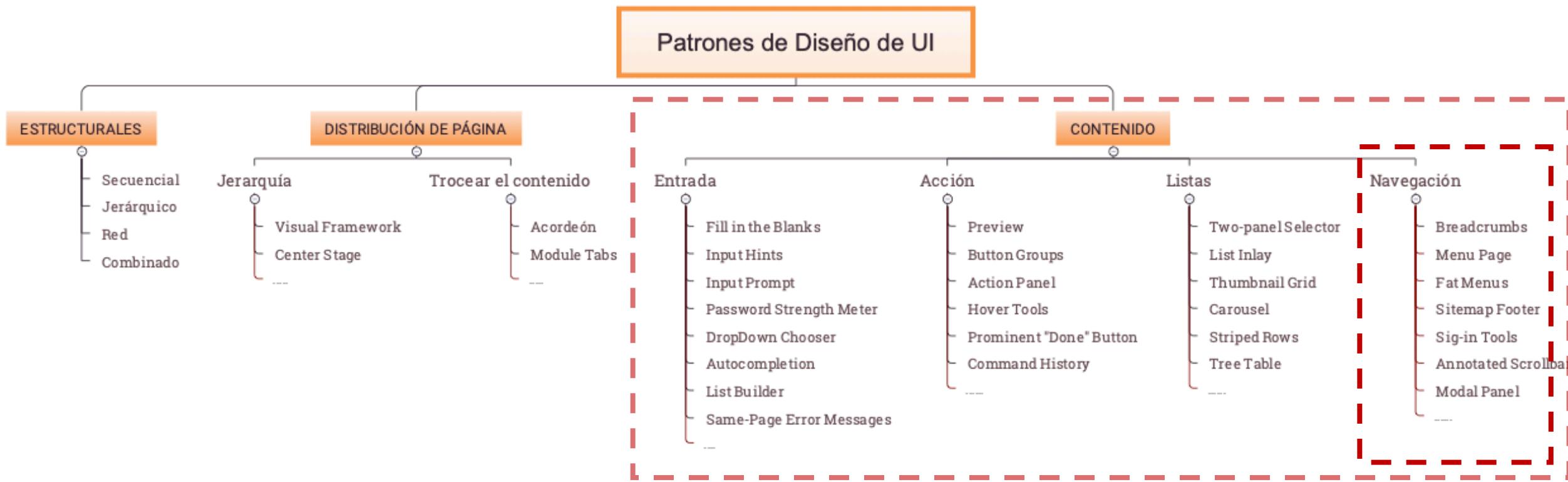


Figure 5-10. Hanna Andersson product listing

Patrones de Contenido



Patrones de Contenido: Navegación

Breadcrumbs



Figure 3-52. Target breadcrumbs

Patrones de Contenido: Navegación

Manu Page

The screenshot shows the Craigslist homepage for Boston. The top navigation bar includes links for 'post to classifieds', 'my account', 'help, faq, abuse, legal', and a search bar. Below the search bar is a date selector for 'swingset' and a 'for sale' dropdown. A 'calendar' section shows the current month's dates. On the left, there are sections for 'personal ads' (strictly platonic, women seek women, men seeking men, misc romance, casual encounters, missed connections, rants and raves), 'discussion forums' (1099, gifts, pets, apple, haiku, philos, arts, health, politic, atheist, help, psych, autos, history, queer, beauty, housing, recover), and 'craigslist blog'. The main content area is divided into several categories: 'community' (activities, lost+found, artists, musicians, childcare, local news, general, politics, groups, ride/share, pets, volunteers, events, classes), 'housing' (apts / housing, rooms / shared, sublets / temporary, housing wanted, housing swap, vacation rentals, parking / storage, office / commercial, real estate for sale), 'jobs' (accounting+finance, admin / office, arch / engineering, art / media / design, biotech / science, business / mgmt, customer service, education, food / bev / hosp, general labor, government, human resources, internet engineers, legal / paralegal, manufacturing, marketing / pr / ad, medical / health, nonprofit sector, real estate, retail / wholesale, sales / biz dev, salon / spa / fitness, security, skilled trade / craft, software / qa / dba), 'other cities' (albany, boston, cape cod, catskills, eastern ct, glens falls, hartford, hudson valley, long island, maine, new hampshire, new haven, new york, north jersey, northwest ct, rhode island, south coast, vermont, western mass, worcester), 'us states' (alabama, alaska, arizona, arkansas, californio, colorado, connecticut, dc, delaware, florida, georgia, guam, hawaii, idaho, illinois, indiana, iowa, kansas, kentucky, louisiana, maine, maryland, mass, michigan, minnesota, mississippi, missouri, denver, montana, n carolina, n hampshire, n hawaii, oregon), and 'countries' (argentina, australia, austria, bangladesh, belgium, brazil, canada, caribbean, chile, china, colombia, costa rica, croatia, czech repub, denmark, ecuador, egypt, finland, france, germany, great britain, greece, hong kong, hungary, india, indonesia, ireland, israel, italy, japan, korea).

Figure 3-14. Craigslist

Patrones de Contenido: Navegación

Fat Menus

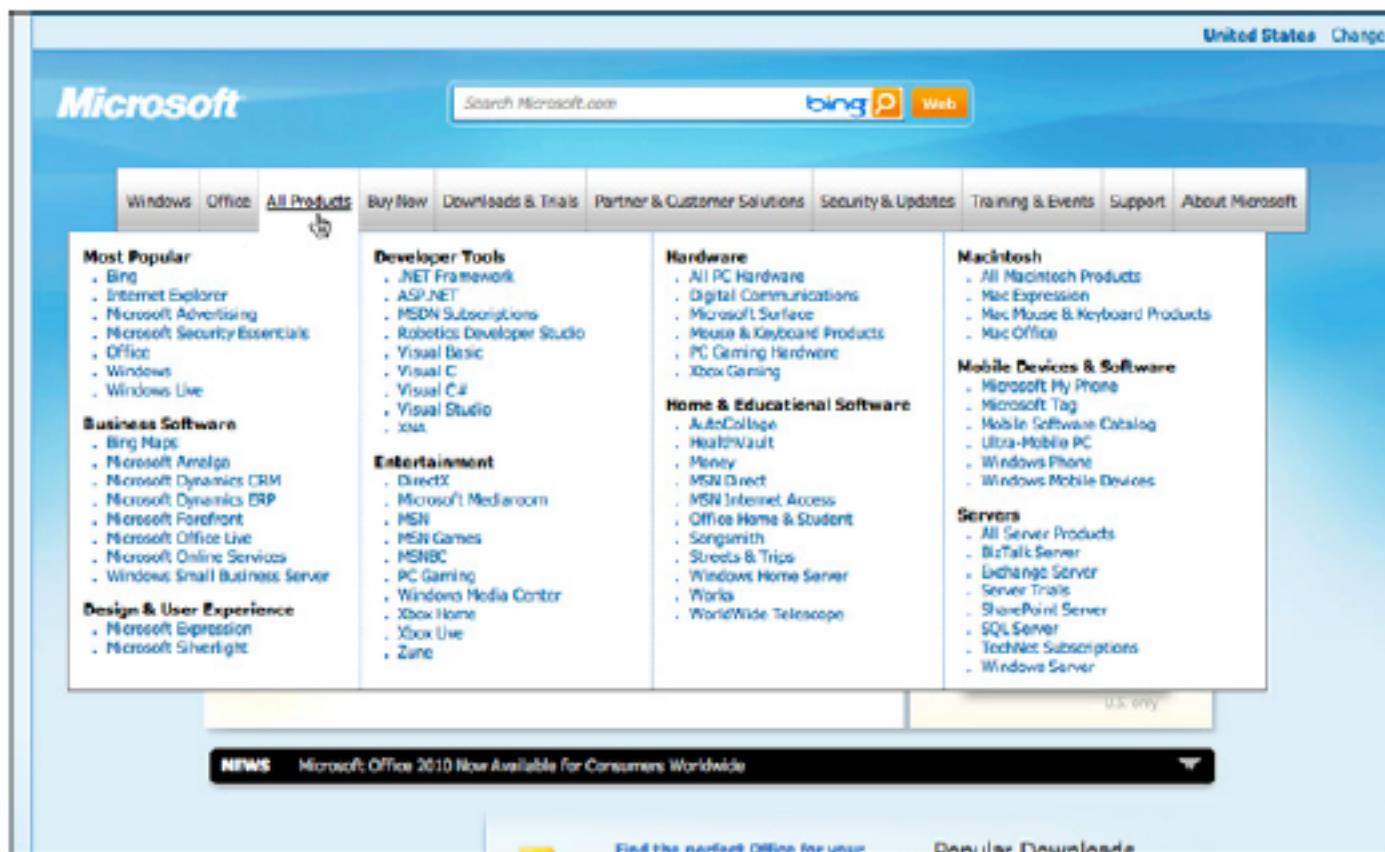


Figure 3-33. Microsoft's All Products menu

Patrones de Contenido: Navegación

Sitemap Footer



Figure 3-38. Whole Foods footer

Sig-in Tools



Figure 3-44. Flickr sign-in tools

Patrones de Contenido: Navegación

Annotated Scrollbar

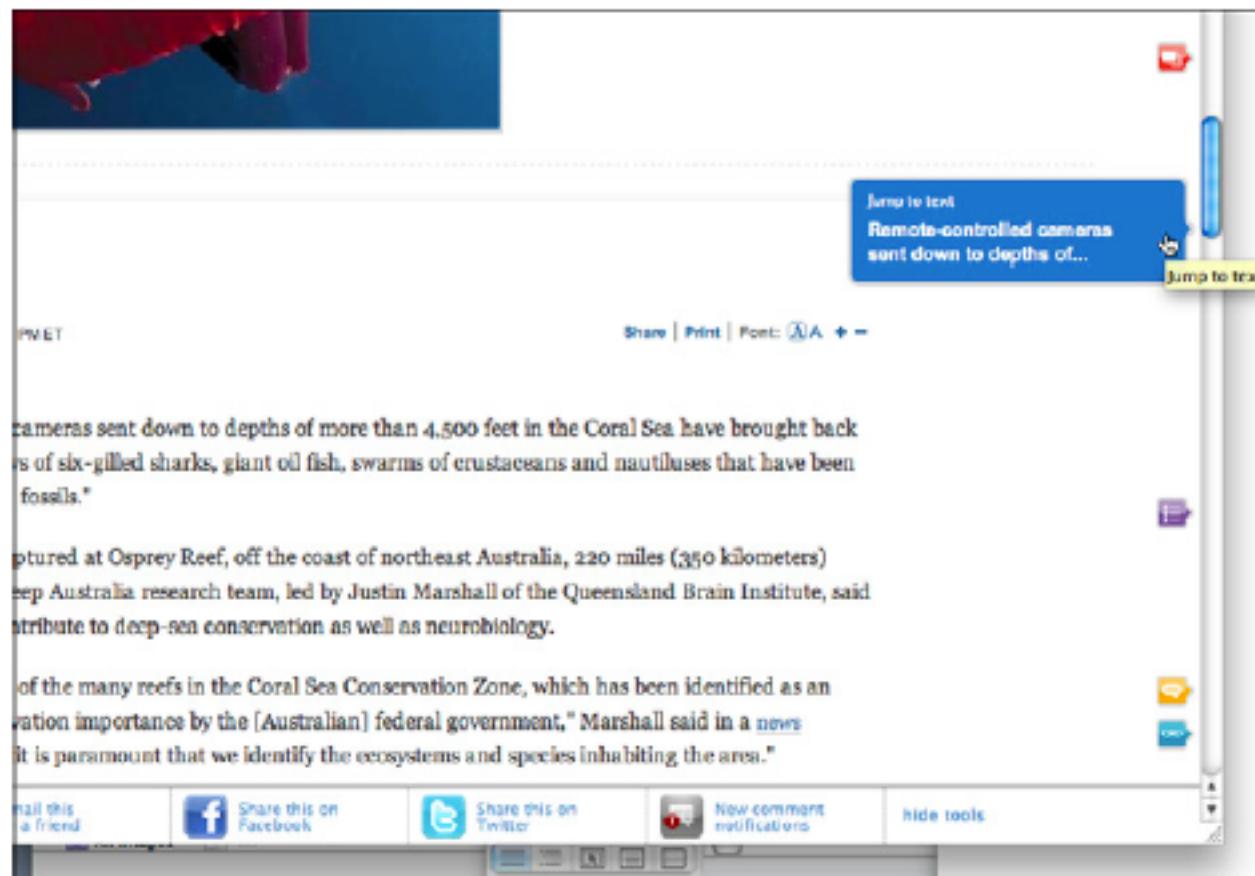


Figure 3-56. MSNBC scrollbar showing page sections

Patrones de Contenido: Navegación

Modal Panel

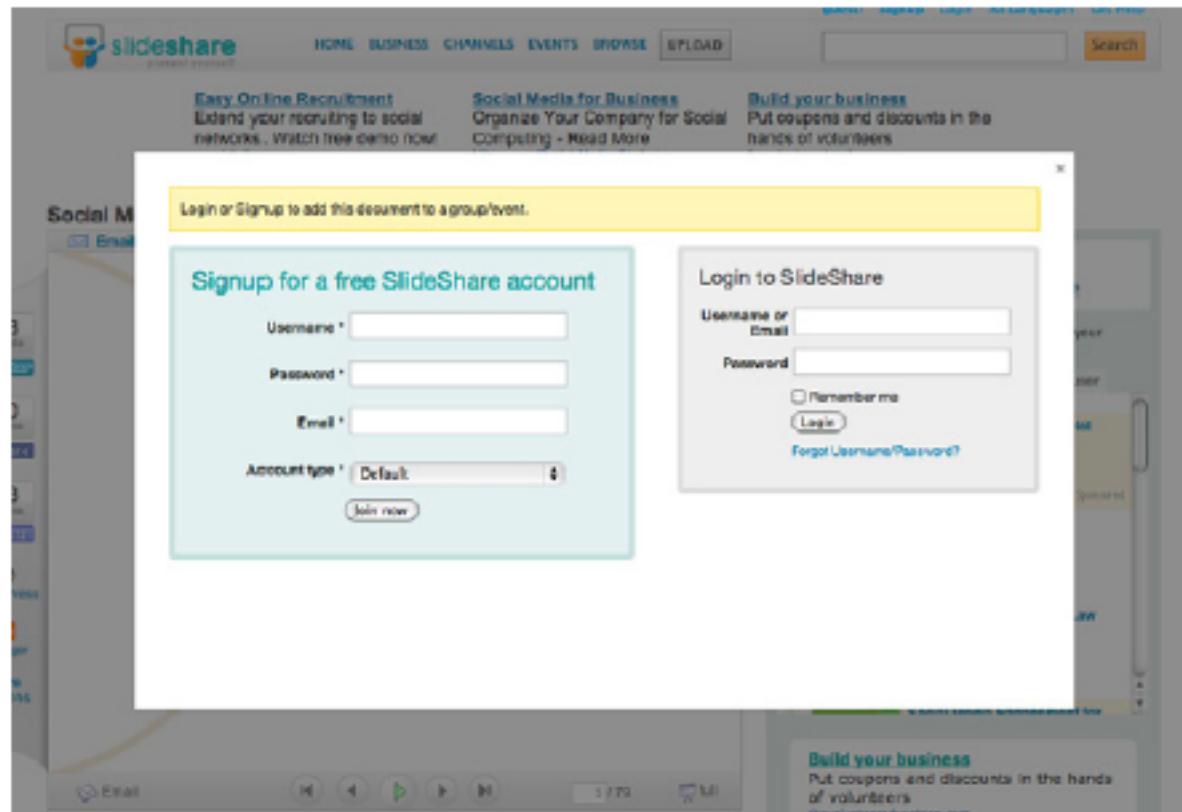


Figure 3-23. SlideShare's login modal panel

Bibliografía

- Tidwell, J. (2010). *Designing interfaces: Patterns for effective interaction design.* O'Reilly Media, Inc.
- Toxboe, A. (2007). User interface design pattern library. Retrieved February 5, 2018, from UI Patterns website: <http://ui-patterns.com/>
- Van Welie, M. (2008). Patterns in Interaction Design. Retrieved March 1, 2018, from <http://www.welie.com/patterns/>