

# Design Languages

SWE 432, Fall 2017

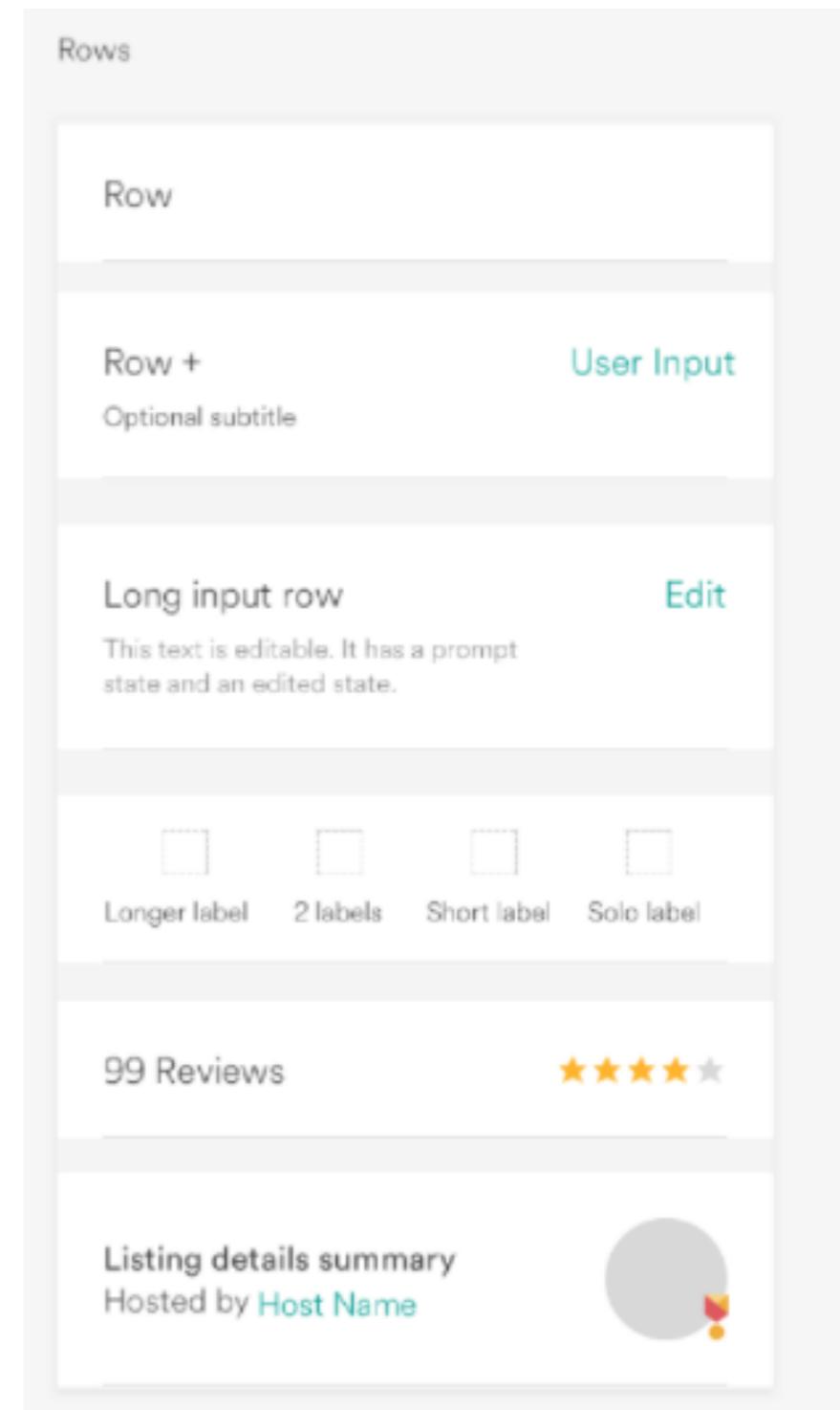
Design and Implementation of Software for the Web

# Today

- What is a design language?
- Course evaluations.
- Next time: Final review

# Design language

- Many, **many** choices about visual variables and syntax of composition
  - How do you ensure choices are made consistently across web app?
- Solution: design language
  - Describes how to express ideas and concepts in the interface
  - May be communicated through Human Interface Guideline documentation
  - (Example of consistency and standards)



# Example: Elements, Google 2004

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New York Times - [www.cmu.edu/](http://www.cmu.edu/) Oct 1, 1996 by Andy Harper [source](#)

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# Example: Syntax, Google 2004

task

Find results  
with **all** of the words  
with the **exact phrase**  
with **at least one** of  
without the words



Results Window

C

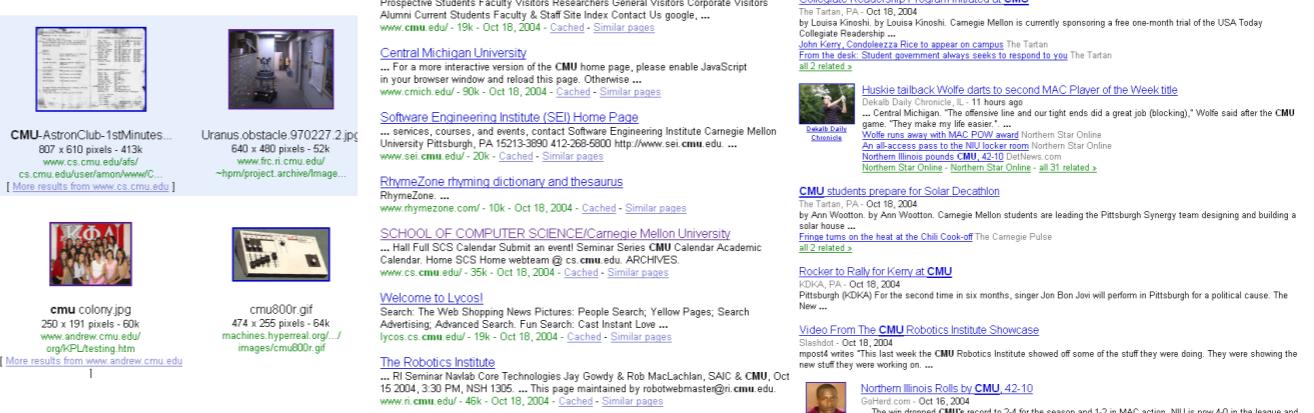
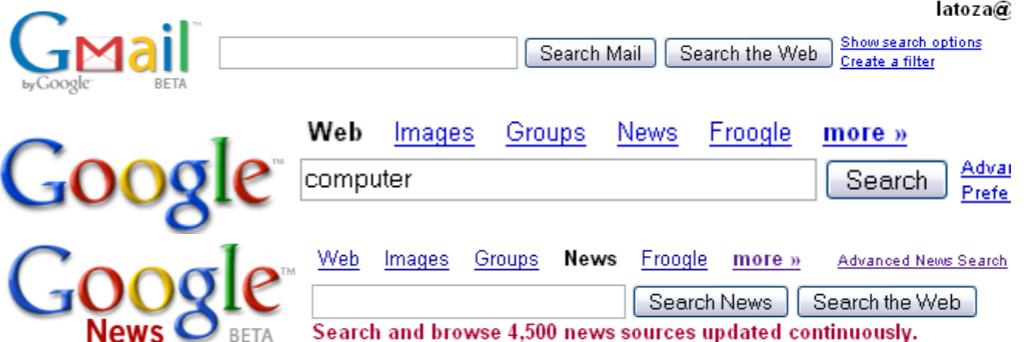
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placeholder

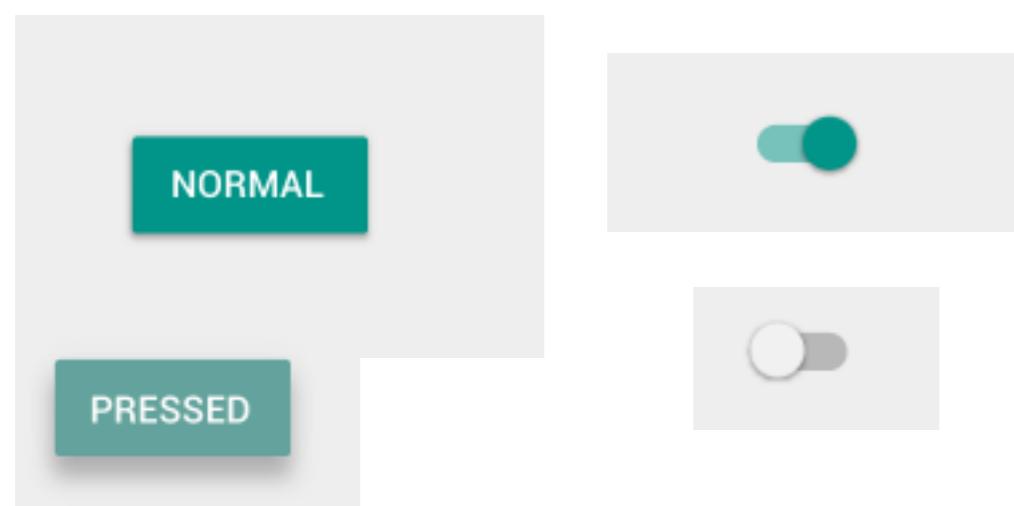
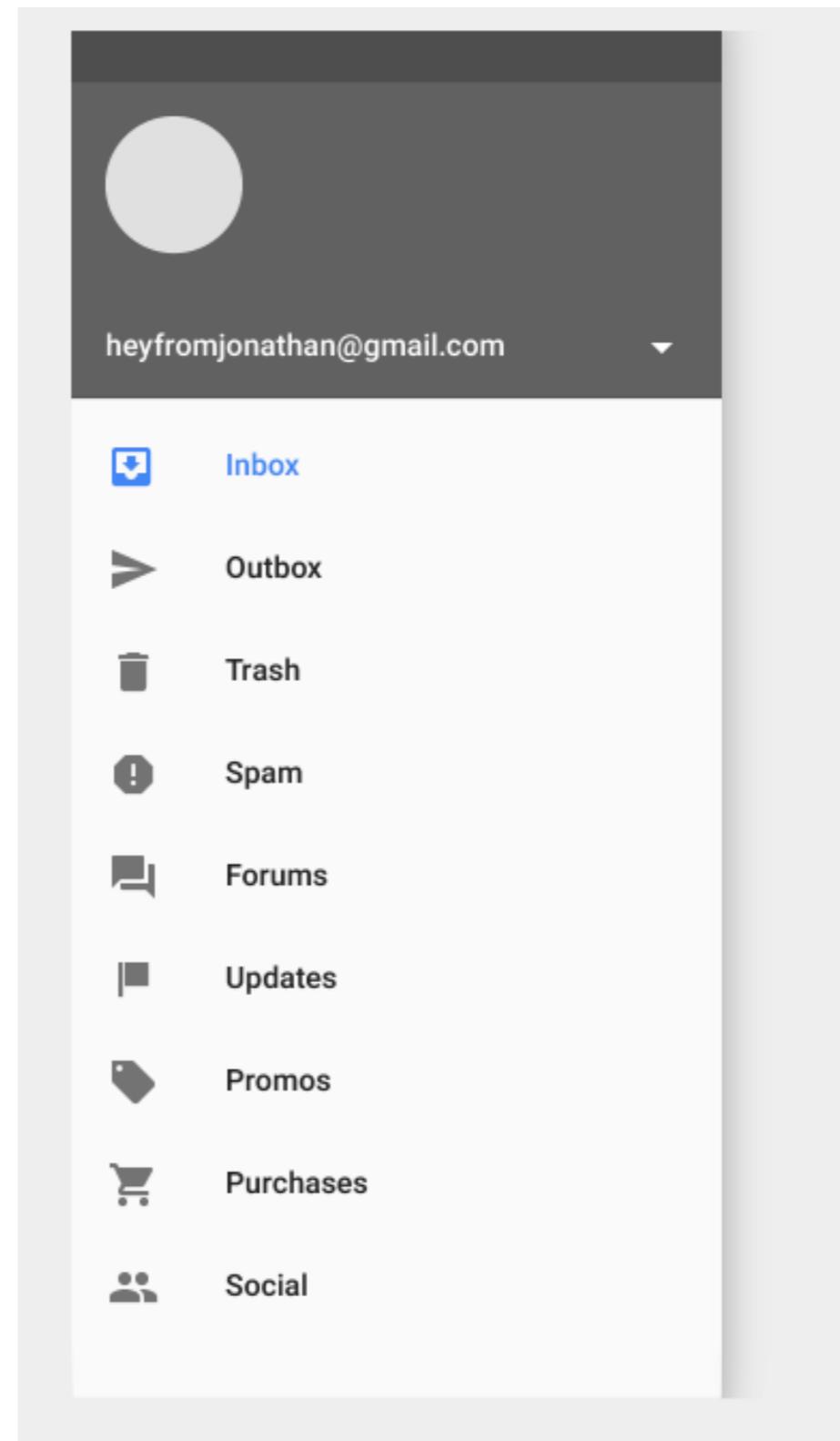
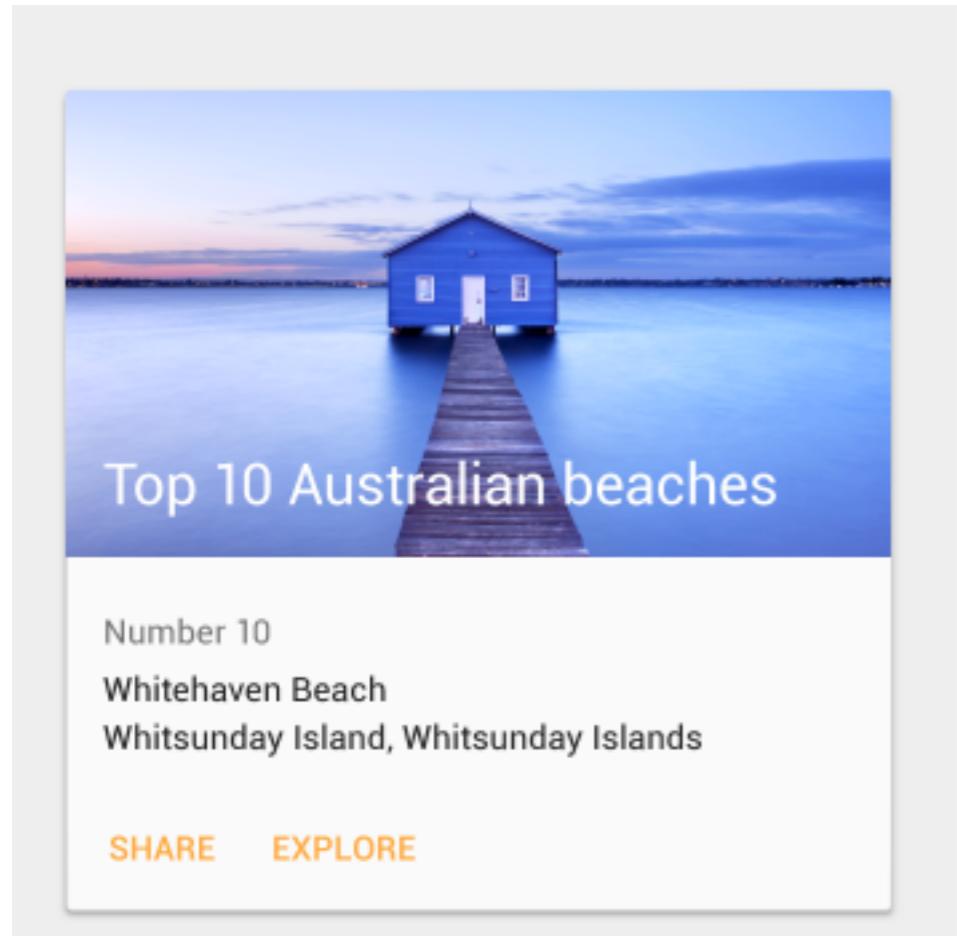
list

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-  Thomas LaToza » FW: Bb F04-17651: My apologies
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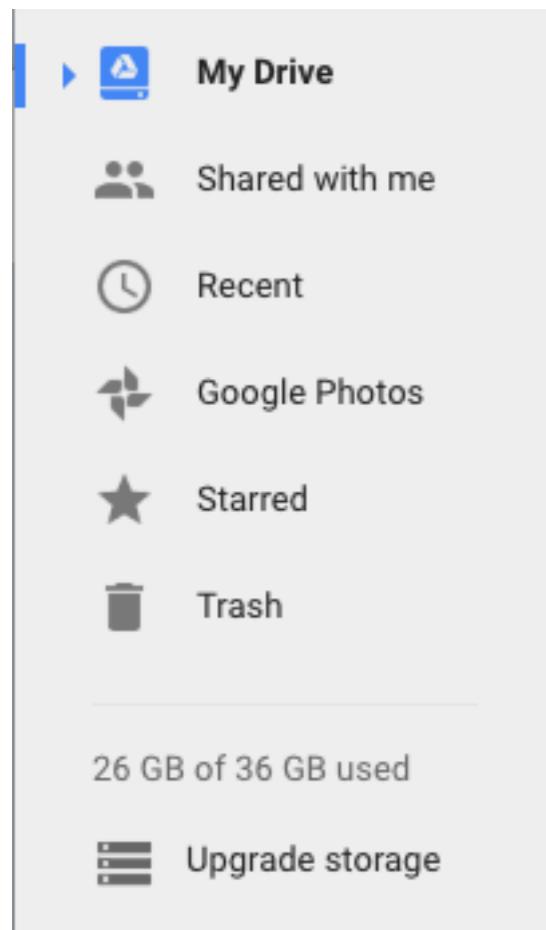
toolbar



# Examples: Google 2016

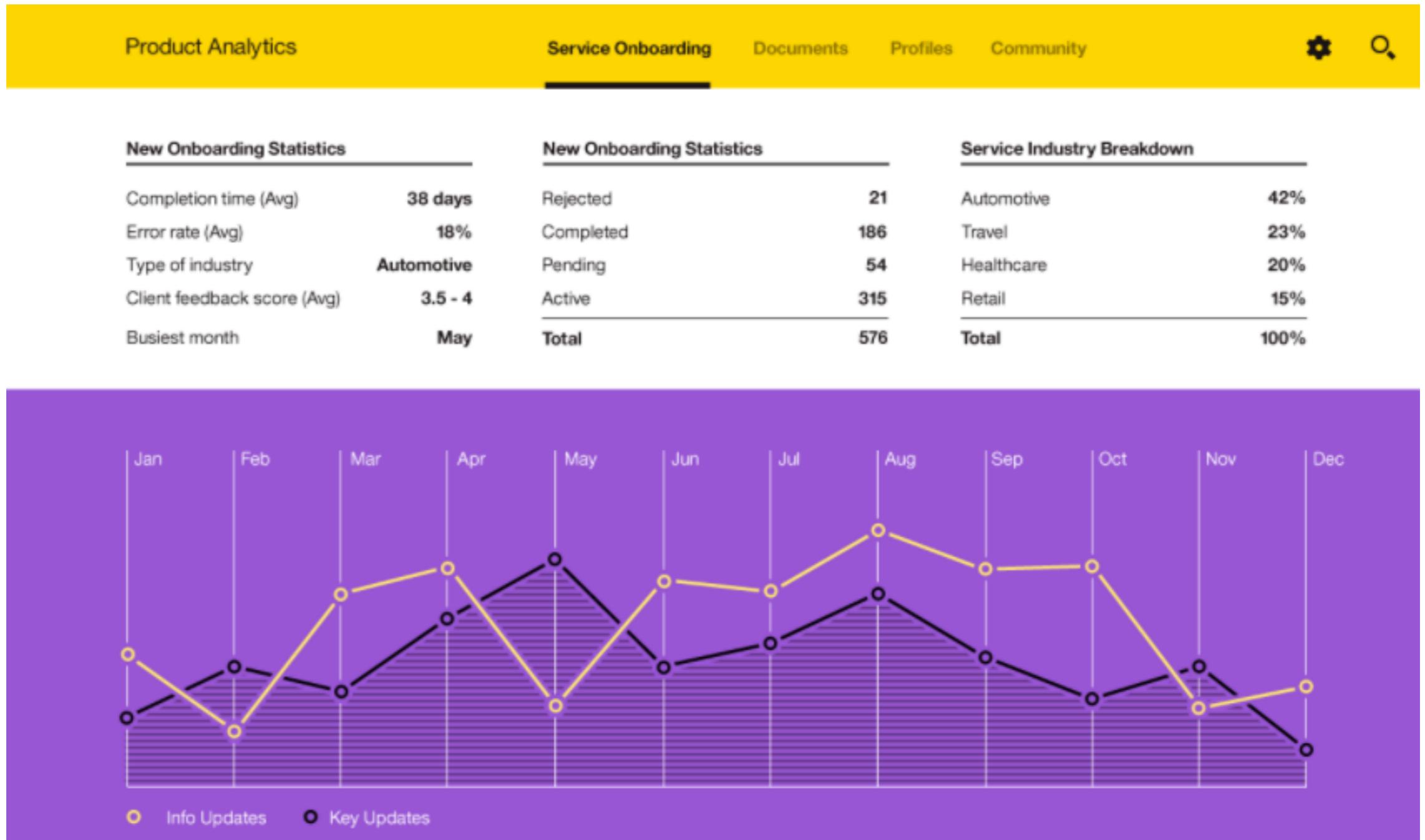


# Examples: Google 2016



The image displays two Google services. On the left is the 'App Engine' dashboard, featuring a list of management options: Services, Versions, Instances, Task queues, Security scans, Quotas, Blobstore, Memcache, Search, and Settings. On the right is the 'Google Merchandise Store' dashboard in '1 Master View'. It includes a search bar, a 'CUSTOMIZATION' section with 'Dashboards' (marked with a red '1' in a circle), 'Custom Reports', 'Shortcuts', and 'Custom Alerts'; a 'Reports' section with 'REAL-TIME', 'AUDIENCE', 'ACQUISITION', 'BEHAVIOR', and 'CONVERSIONS'; and an 'ADMIN' section.

# Examples: IBM

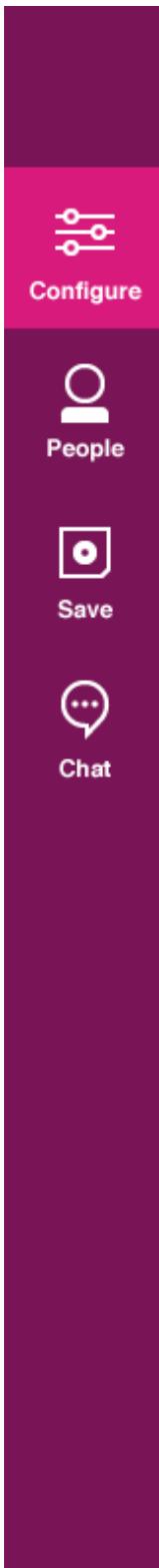


# Examples: IBM

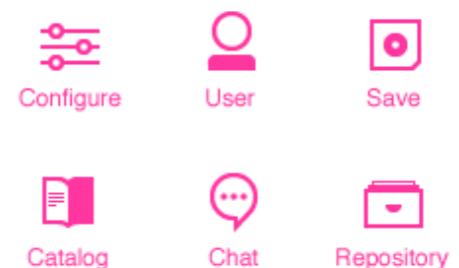


# Examples: IBM

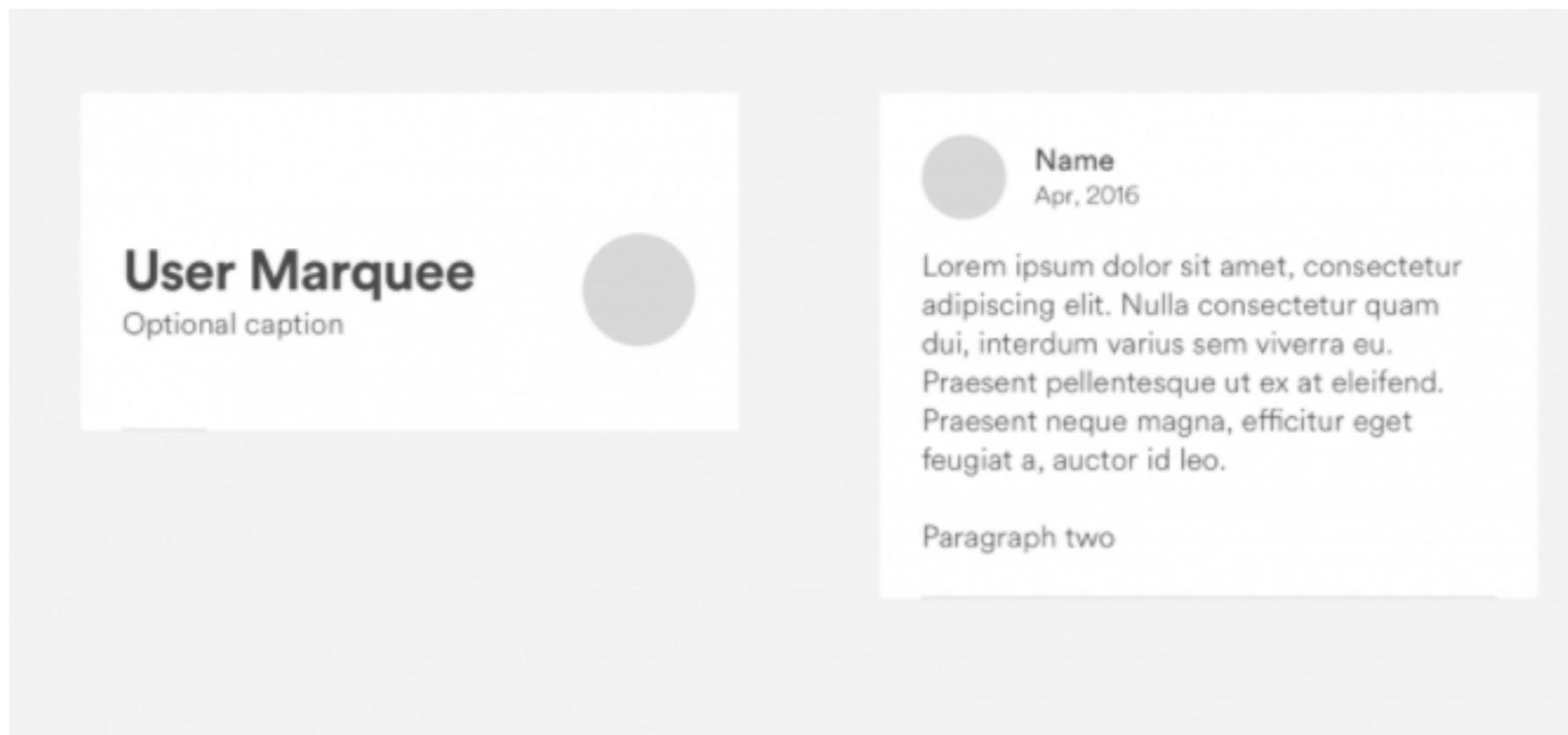
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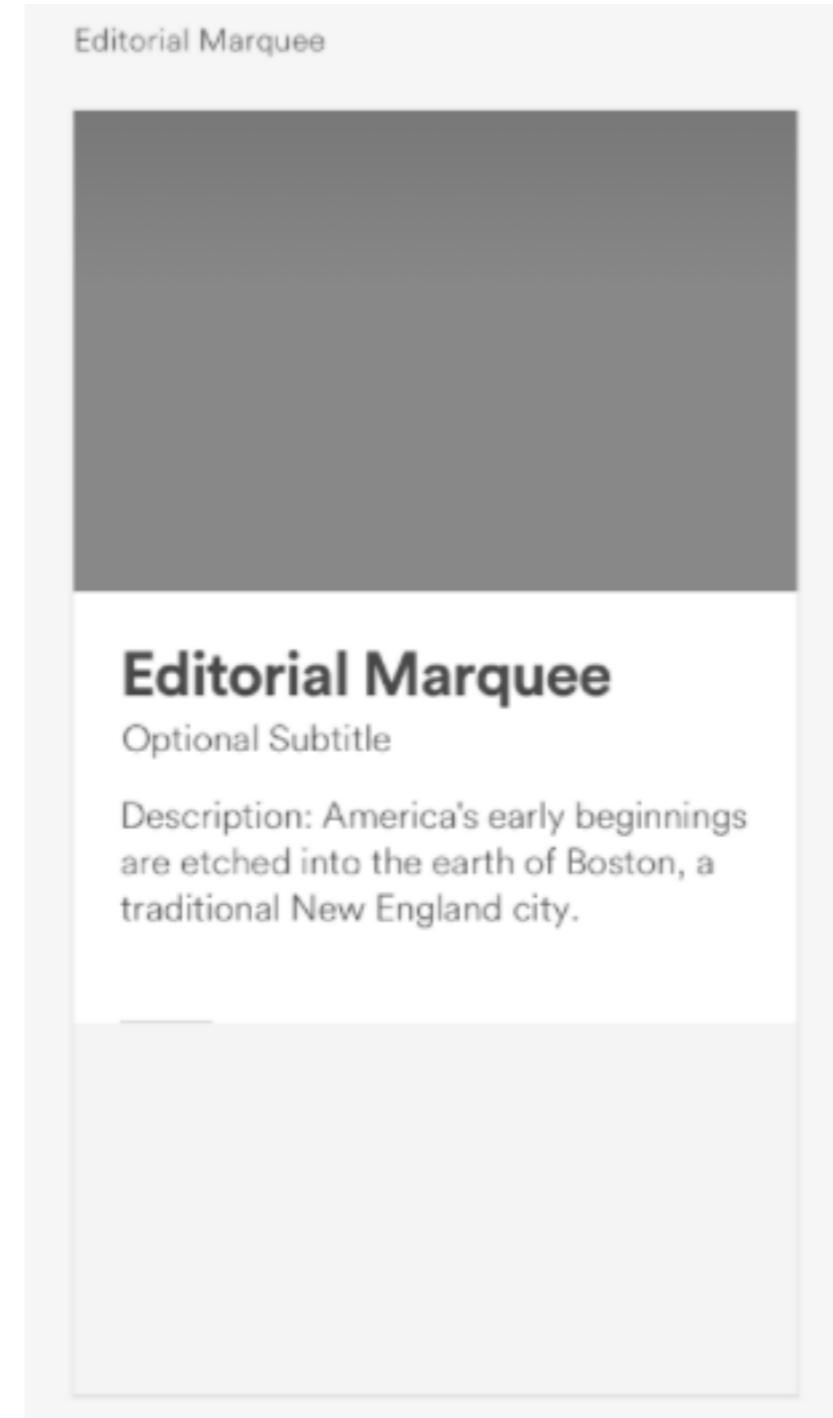
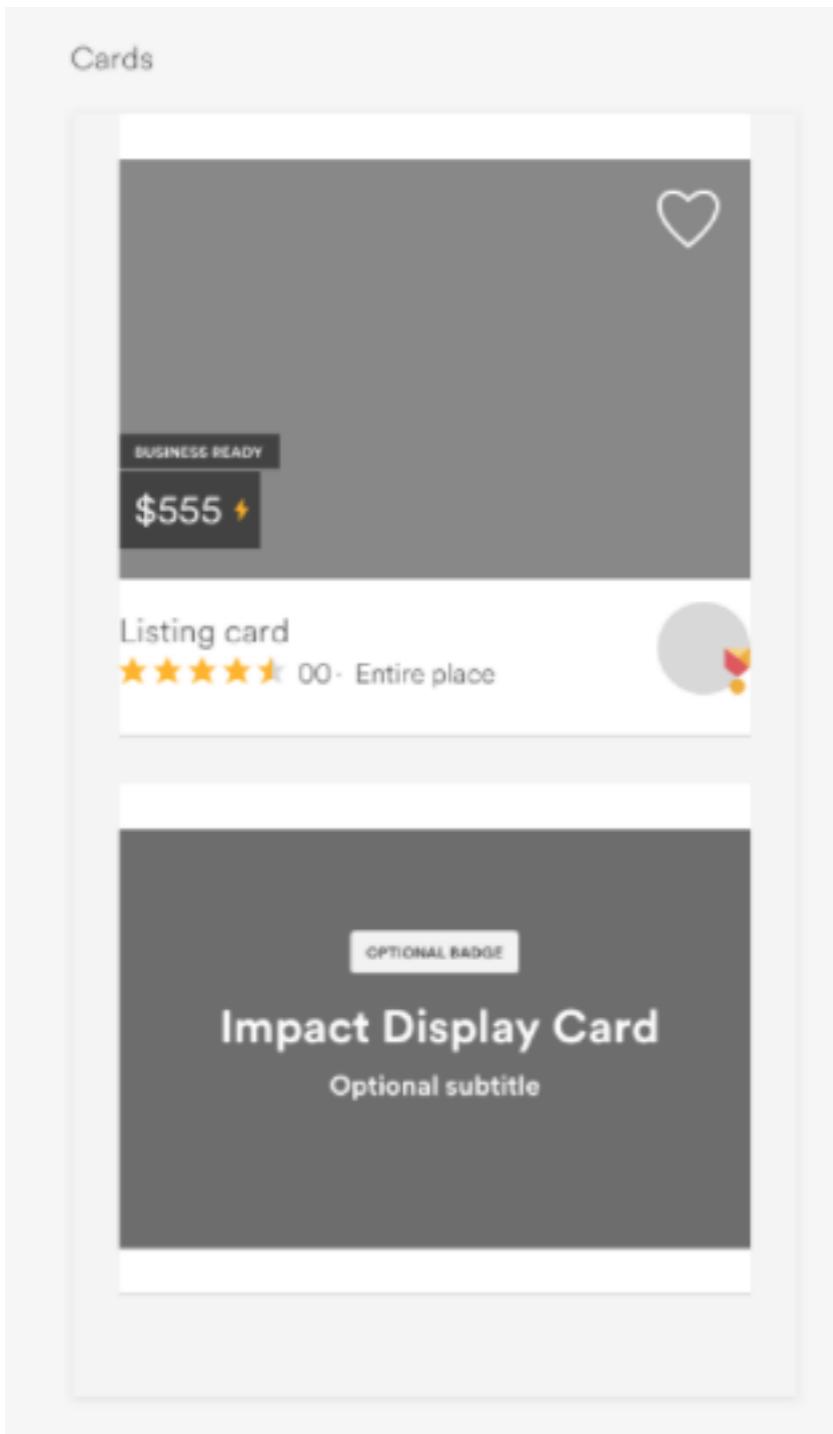
Title	Title	Value	Date	Value
Imperial	true	9 456 234	21. Feb 2014	9 456 234
Hard	false	987 345	21. Feb 2014	987 345
Cider	false	43 567	21. Feb 2014	43 567
Anaerobic	true	324 543	21. Feb 2014	324 543
Cold filter	false	432 456	20. Feb 2014	432 456
Barrel hand	true	32 432	20. Feb 2014	32 432
Pump wort	true	4 567	20. Feb 2014	4 567
Dry hopping	false	34 567	20. Feb 2014	34 567
Carbonation	true	434 567	20. Feb 2014	434 567
Mash tun	false	9 456 234	20. Feb 2014	9 456 234
Bittering hops	true	987 345	20. Feb 2014	987 345
Heat exchanger	false	43 567	19. Feb 2014	43 567
Lauter aerobic	false	324 543	19. Feb 2014	324 543
Abbey seidel	true	432 456	19. Feb 2014	432 456
Brewhouse	false	32 432	19. Feb 2014	32 432
Brewpub adjunct	true	4 567	19. Feb 2014	4 567
Dextrin seidel	true	34 567	19. Feb 2014	34 567
Aau beer	false	434 567	19. Feb 2014	434 567
Krug abv	true	434	19. Feb 2014	434



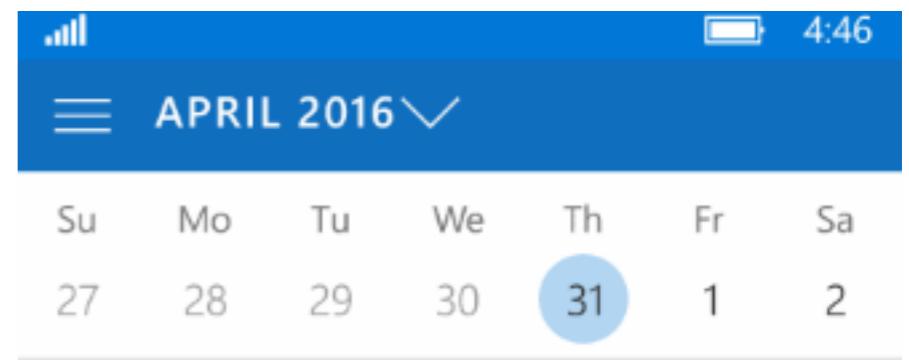
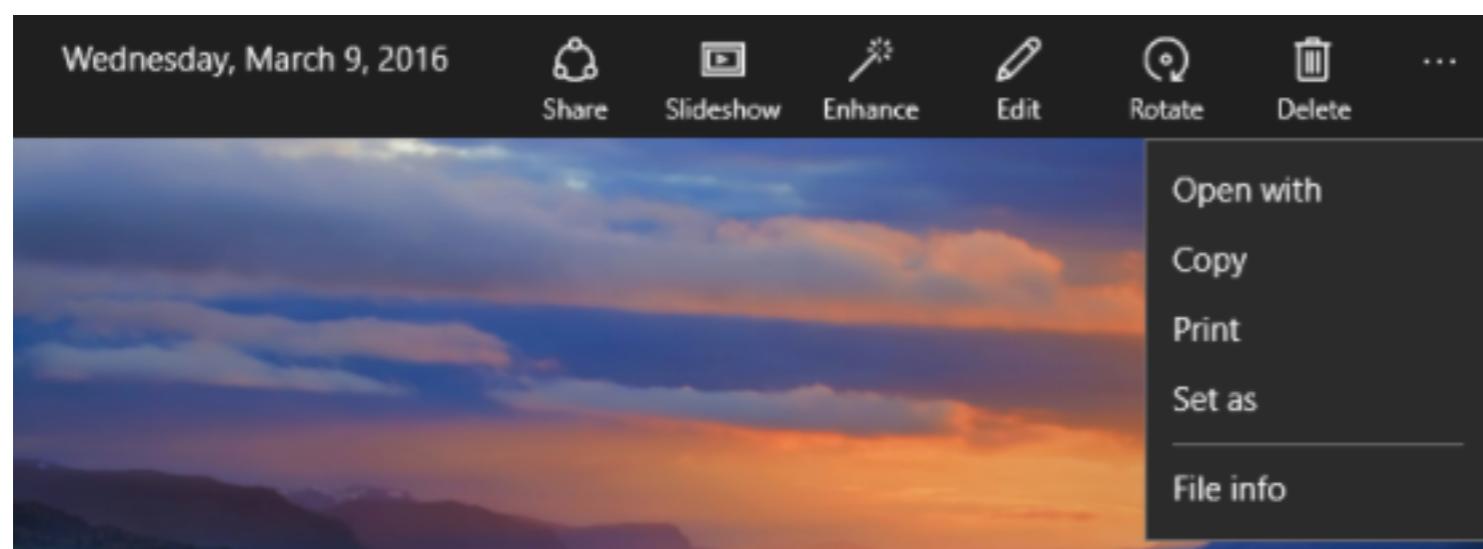
# Examples: AirBnb



# Examples: AirBnb



# Examples: Microsoft



Thursday 31

Friday 1

Saturday 2

Sunday 3

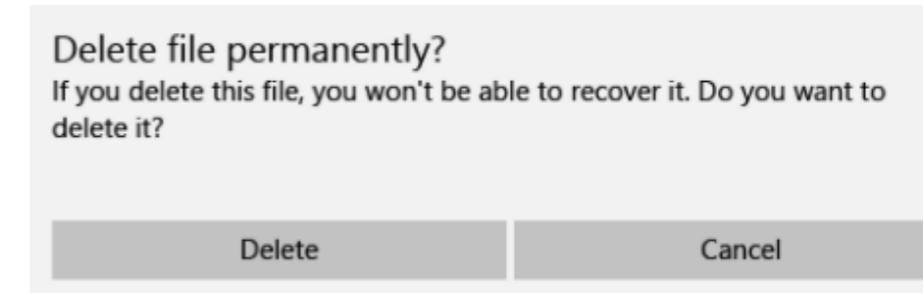
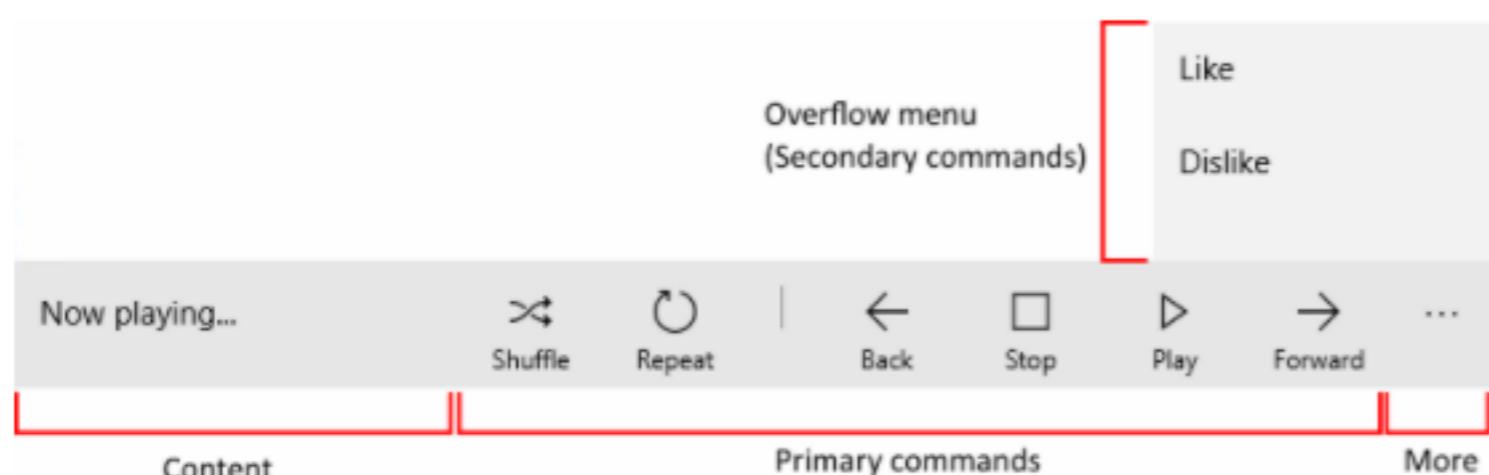
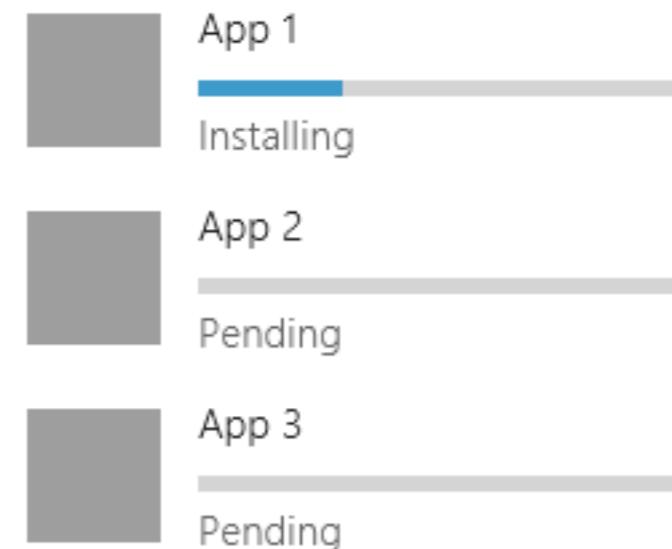
Monday 4

Tuesday 5

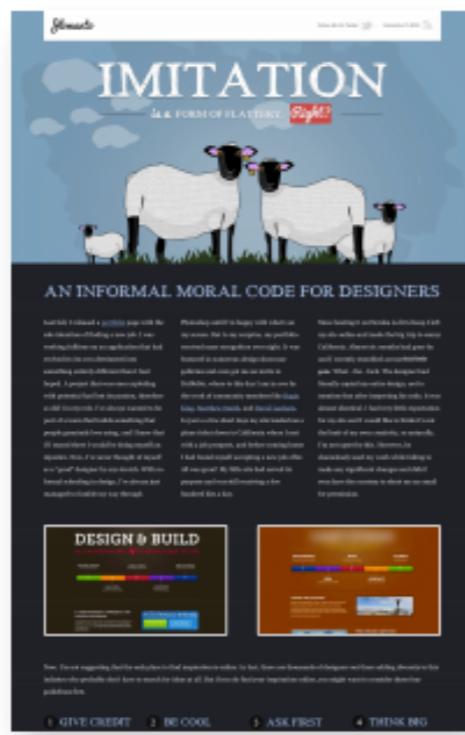
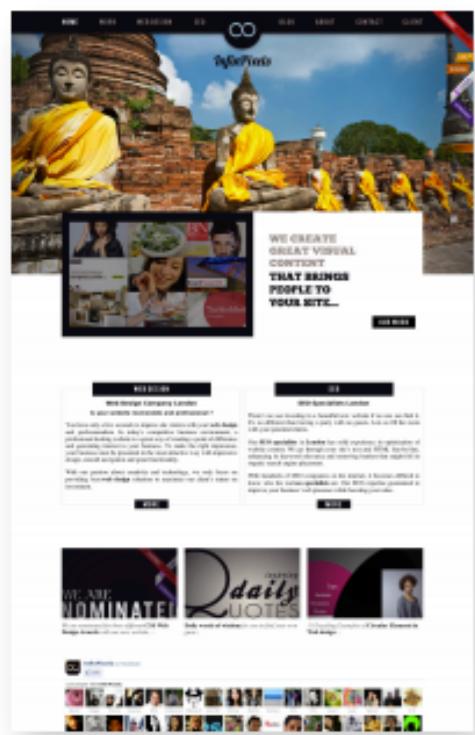
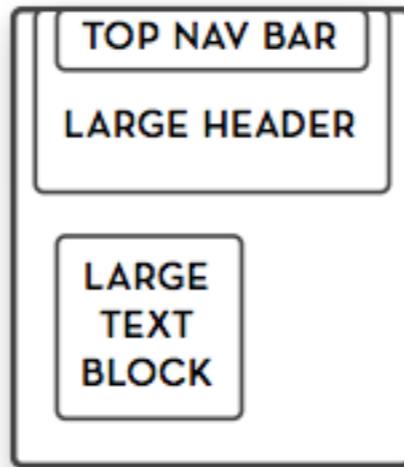
Wednesday 6



# Examples: Microsoft



# Example: Header with text blocks layout



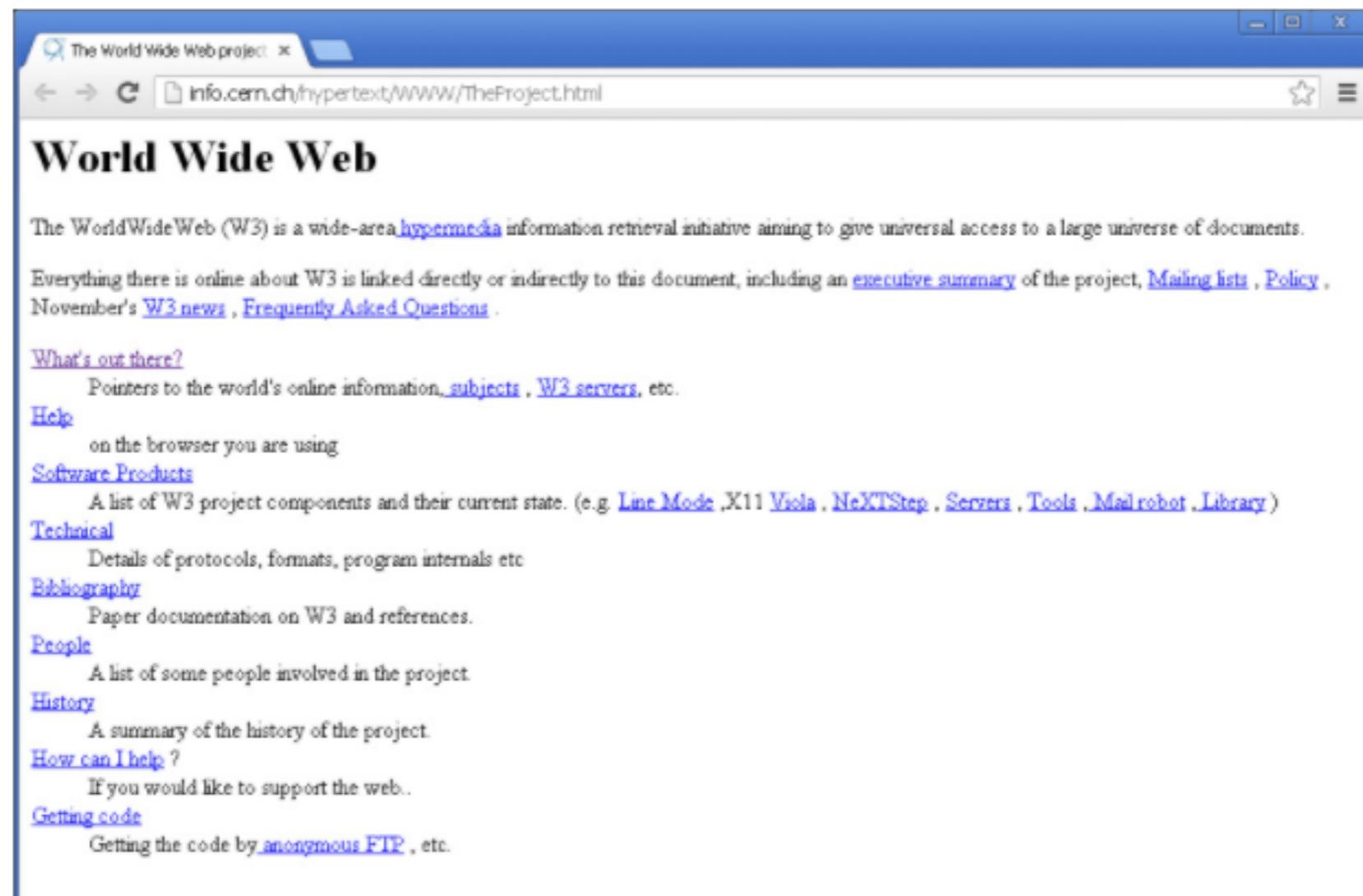
From: <http://ranjithakumar.net/resources/webzeitgeist.pdf>

# Elements strongly associated with position



From: <http://ranjithakumar.net/resources/webzeitgeist.pdf>

# Web design languages over time



<https://blog.hubspot.com/marketing/look-back-20-years-website-design#sm.00000ip14jejk1d51u53crk6cwrns>

# Web design languages over time



The screenshot shows the Apple website homepage from July 14, 1997. The header features the Apple logo and the text "Welcome to Apple 1997". The date "JULY 14" is in the top right corner. On the left, a sidebar with a red background lists links: "Find It", "Product Information", "Customer Support", "Technology & Research", "Developer World", "Groups & Interests", "Resources Online", and "About Apple". Below this is a section for "Apple Sites Worldwide" with links for "Switzerland", "Taiwan", "Turkey", "UK & Ireland", and "United States". The main content area has a blue banner with the text "Introducing CyberDrive" and "Register today for a free CD-ROM." It also features a BMW logo and a "What's Hot" section. A sidebar on the right highlights the iMate 300 (a mobile device) and "MOVIES FROM MARS" (QuickTime VR).

**Introducing CyberDrive**

*Register today for a free CD-ROM.*

**What's Hot**

**Preorder Mac OS 8**

Now you can [preorder Mac OS 8](#), described by Macworld as "the most comprehensive update to the Mac OS in years, sporting a bold new look, a speedier Finder, more

**Be the First to Know**

Learn about new Macintosh software releases the moment they become available. Check [Hot Mac Products](#) to hear about programs like Speed Demon, ReBirth RB-338 and

# Web design languages over time



# Web design languages over time

**Polaroid**

Home Site Map Search

Company Info Product Catalog Contact Us Customer Support Dealer Locator

**News and Events**

[What's New](#) ▶

[Instant Digital Printing Technology](#) ▶

[Other Events & Promotions](#) ▶

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**Consumer**



[View TV Ads](#) +

[Instant](#) +

[Digital](#) +

[Teens](#) +

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**Commercial**



[Polaroid Education Program](#) +

[Promotional Products](#) +

[OEM](#) +

[Artist's Studio](#) +

[Polaroidwork.com](#) +

[Eyewear](#) +

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♦ CHECK THIS OUT



**600 Silver Express**

What would you do with a FREE pack of film? Check out our new commercial!

▶ [Full Product Catalog](#)

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♦ OTHER POLAROID SITES:

 **i-Zone**

 **Digital**

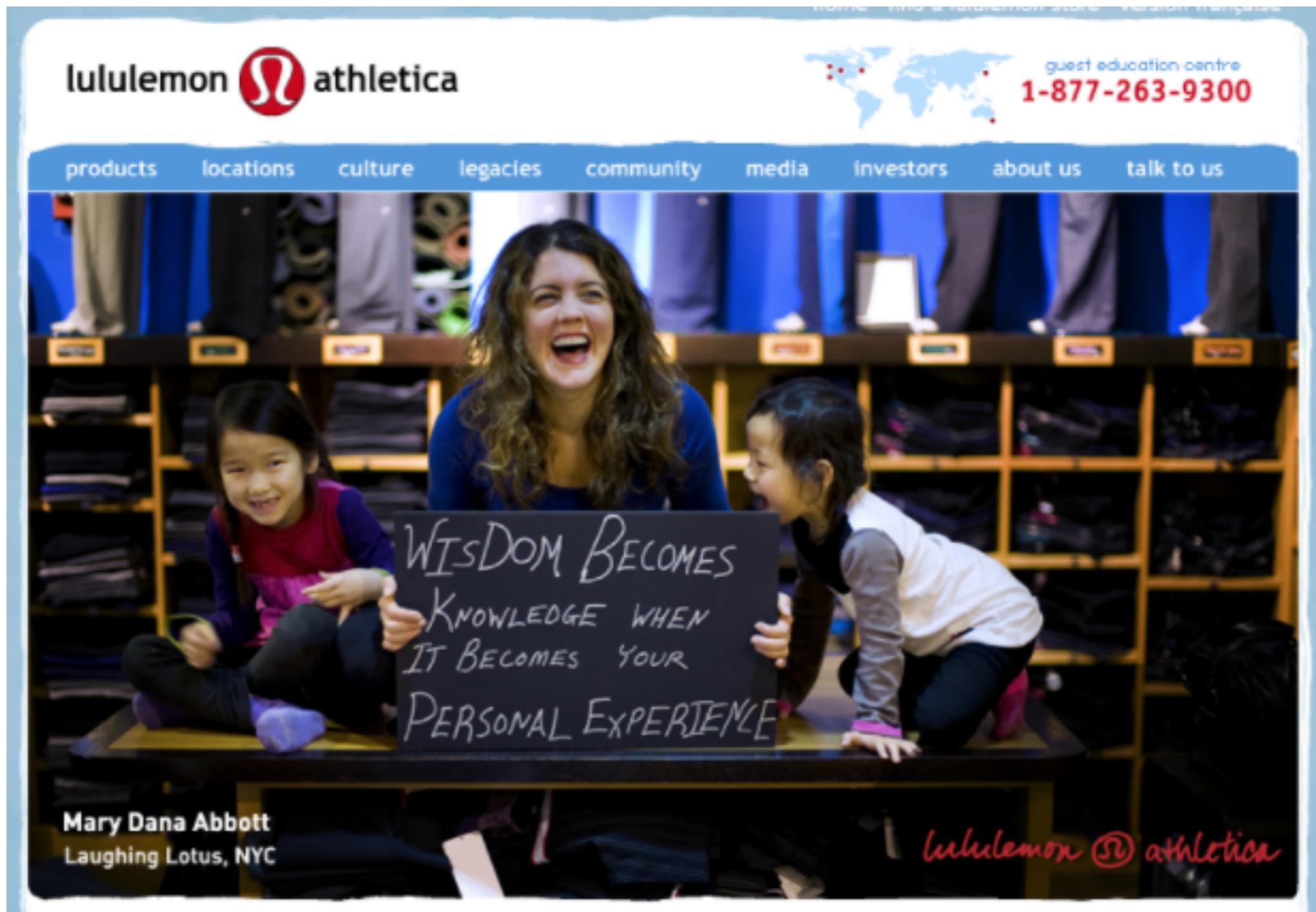
 **Work**

 **Worldwide**

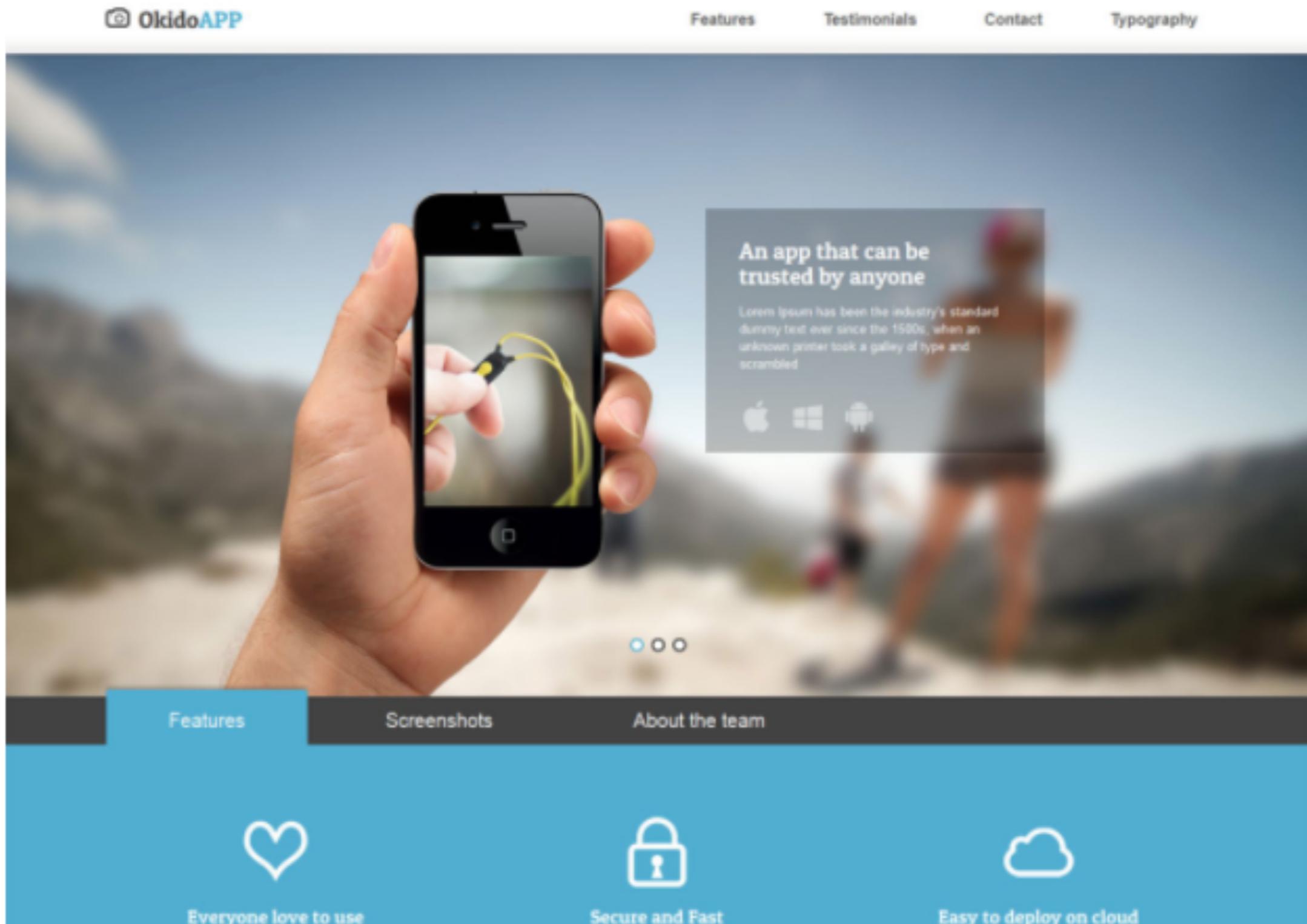
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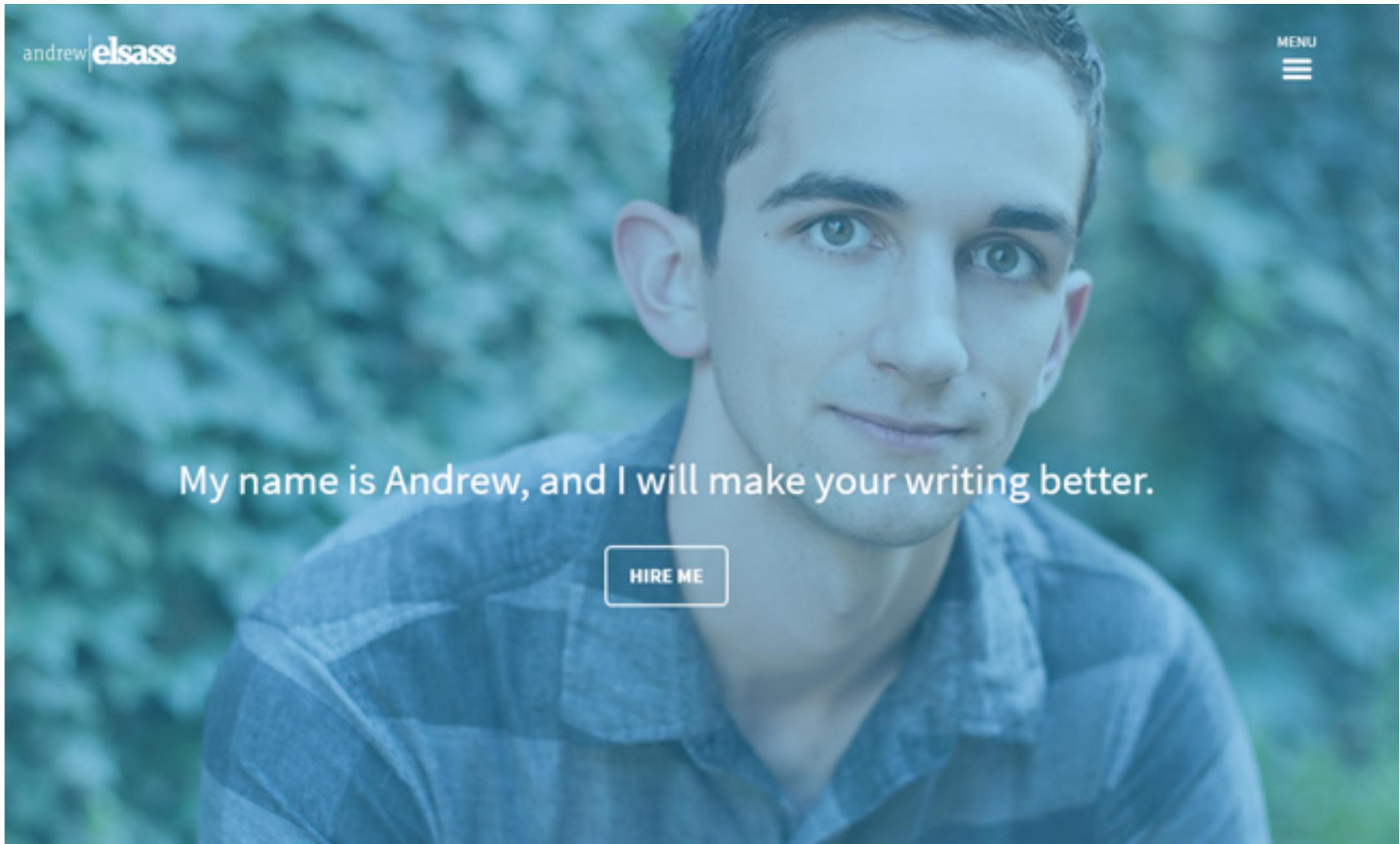
# Web design languages over time



# Web design languages over time

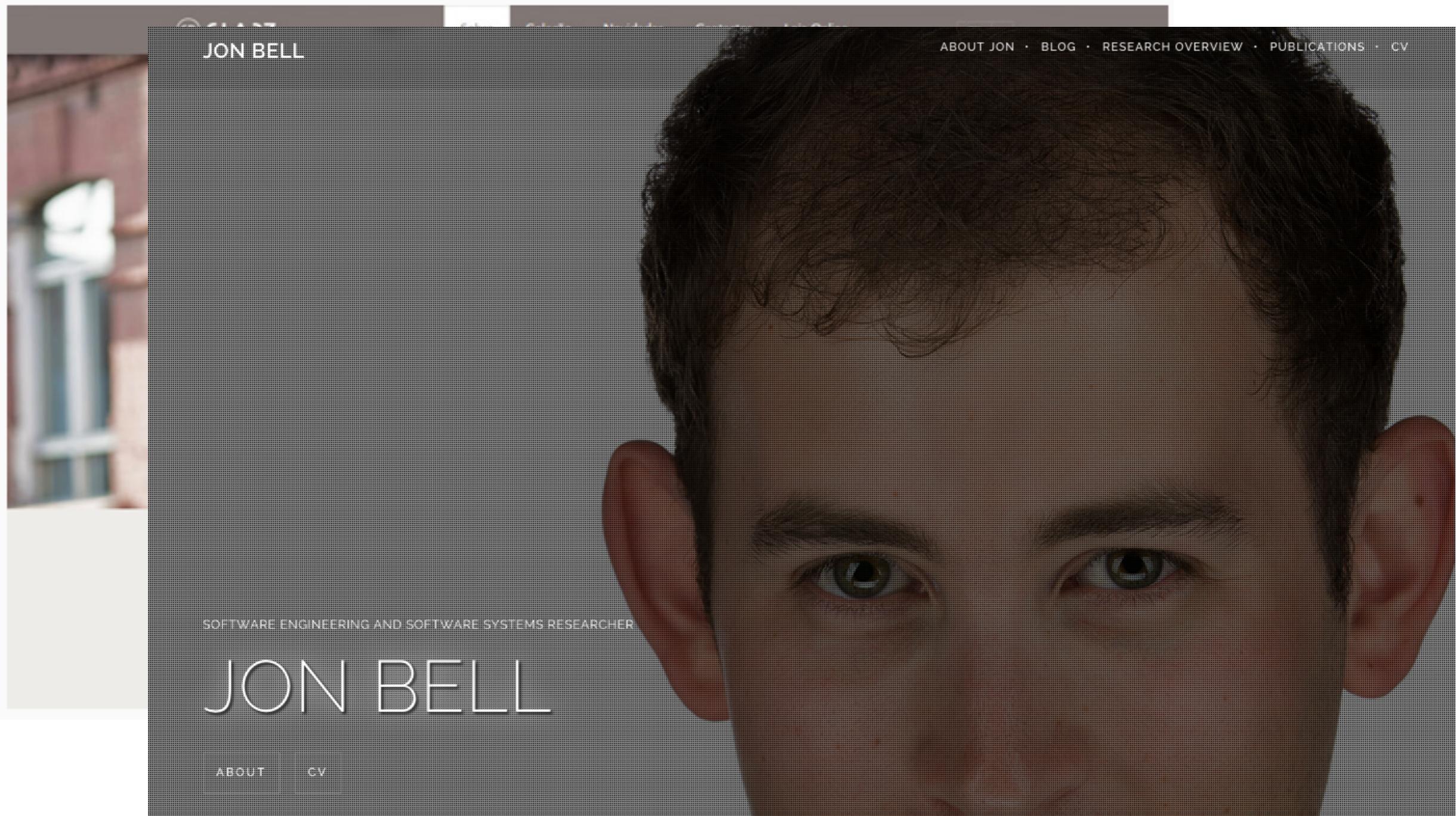


# Common visual idioms, circa 2016



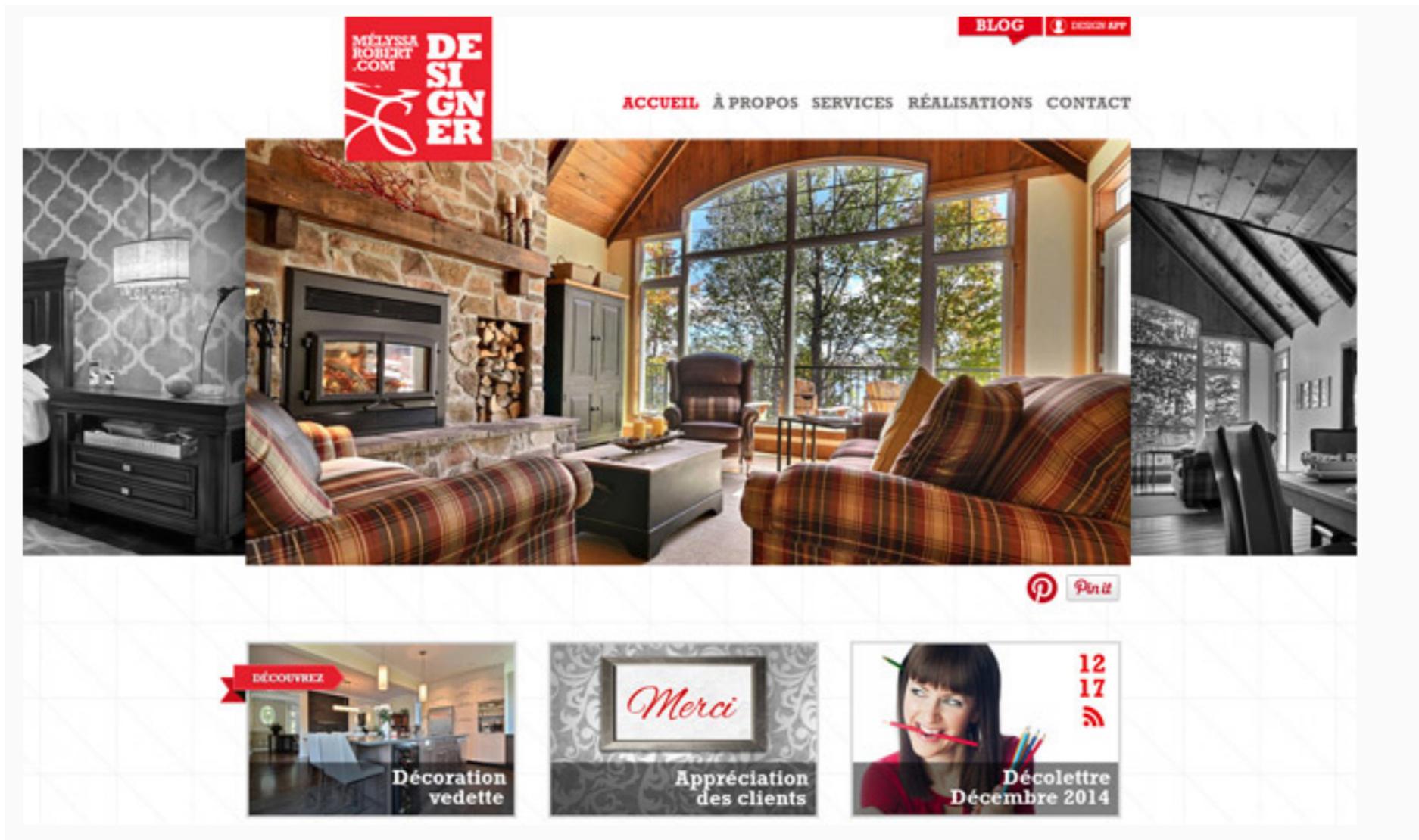
- Hero images: large attractive header image
- <https://envato.com/blog/exploring-hero-image-trend-web-design/>

# Common visual idioms, circa 2016



- Single page designs: hero image with a navbar
- <https://envato.com/blog/exploring-hero-image-trend-web-design/>

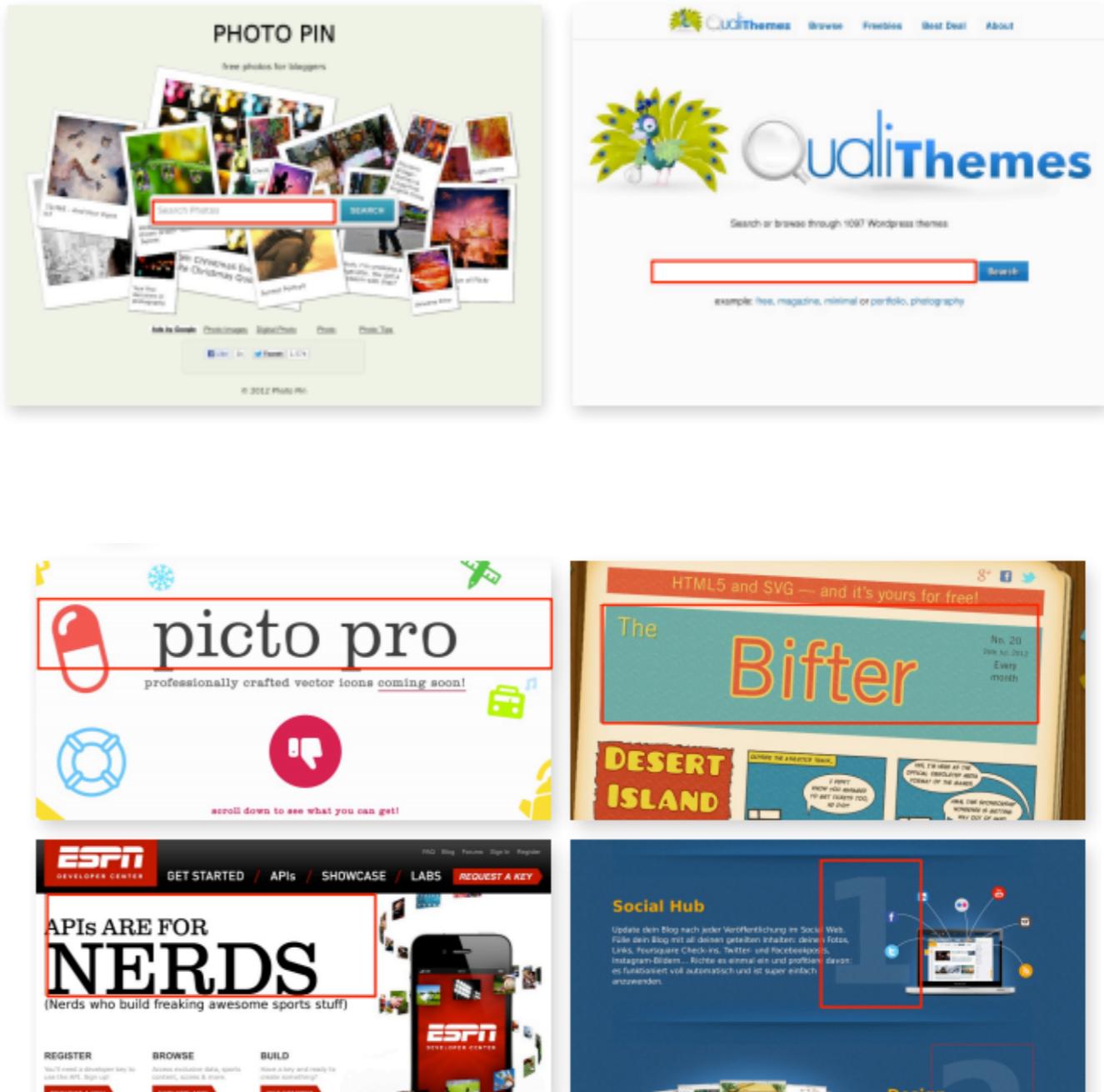
# Common visual idioms, circa 2016



- Rotating image galleries (carousels)
- <https://envato.com/blog/exploring-hero-image-trend-web-design/>

# Why it matters

- Users will have idioms they expect to see, particularly if suggested by other related elements
- Branding: Users will see your website and have particular associations based on what it exemplifies



# Goals in designing a design language

- Offer guidance and options on
  - Colors: examples of color palettes
  - Typography: justification, sizes, fonts, different heading levels
  - Organization
- Support different resolutions, devices

# Activity: Identify Design Language

- In groups of two or three:
  - Pick a website.
  - Identify key design language elements.
  - For each element you identify
    - What differentiates its appearance?
    - What does its appearance mean?
    - In what situations can it be used?

# Design Critiques

- Opportunity to offer **feedback** on interaction designs
- Often done in group context, where many will offer feedback together
- Important to offer feedback **constructively**
  - Critique the design ideas, not the designers
- Important to consider who is the user, what are their goals, and in what ways does the web app help (or not help) in accomplishing these goals
- Can use full range of interaction design principles
  - Heuristic evaluation, interaction techniques, site design, visual design, ...

# Activity: Design Critique

- Form groups of two or three where each member is from a **different project group**
- Take turns. For each web app you have built
  - Bring up and demo the web app. Let group members try it.
  - Critique the interaction design, identifying positive elements and potential ideas for improvement.

# Discussion of course structure

- Open ended assignments vs. canned programming assignments?
- Project split into 11 assignments vs fewer bigger deadlines?
- Teams vs. individual assignments?
- Pacing of assignments and lectures. Topics that were too fast or too slow?