



# Effective Design & Engineering Collaboration

Theresa Ma  
[@mapotato](https://www.instagram.com/mapotato)

**WHY ARE WE HERE?**









**Theresa**

Software Engineer @ Yelp

Twitter: @mapotato



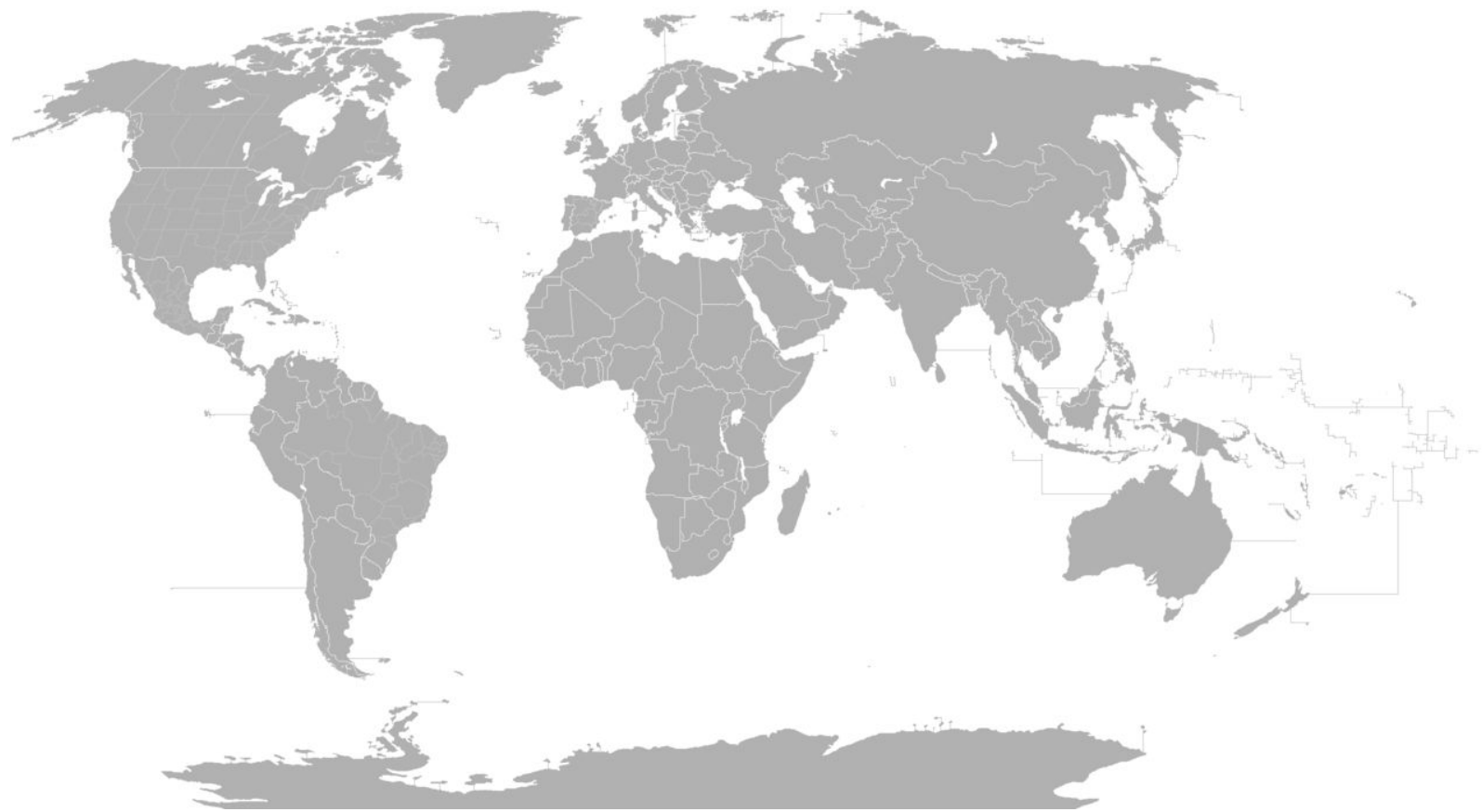
# The Story

Chapter 1: Creating Language  
Natural Language  
Design Language

Chapter 2: Using Language  
Shared Goals  
The Practical Stuff

Chapter 3: Creating & Using Tools  
Tools for doing things  
Tools for organizing & sharing  
information





# The Briefest History of Humankind

Start with **language**  
then **communication**  
and then **collaboration**  
from there, you can go on to form  
**community** (+ culture)







**Connecting people  
with great local  
businesses**



**29M** monthly unique mobile app users

**77M** monthly unique desktop web users

**64M** monthly unique mobile web users

**148M** Reviews

**32** Countries



**Strong Product**

---

**Strong Design + Engineering Relationship**



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## Chapter 1: Creating Language

**Natural Language**

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**We're not  
the only  
ones with  
language**









10 year study  
24,000 people  
24 organizations



NEW YORK TIMES BESTSELLER

# TRIBAL LEADERSHIP

Leveraging Natural Groups  
to Build a Thriving Organization



DAVE LOGAN, JOHN KING  
& HALEE FISCHER-WRIGHT

Foreword by Warren Bennis



# Rhetoric & Organizational Culture

Stage	Sampling of words that came in close proximity to other words
One	Life, sucks, break, can't, cut, whatever
Two	Boss, life, try, can't, give up, quit, sucks
Three	I, Me, my, job, did, do, have, went
Four	We, our, team, do, them, have, did it, commit, value



# WITTGENSTEIN

“

**The meaning  
of a word is in  
its use in the  
language**

”

Designer | Engineer  $\neq$  'other'



## ACTION ITEM

Go get a coffee with a designer or engineer you don't yet work closely with



# The Story

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**Design Language**

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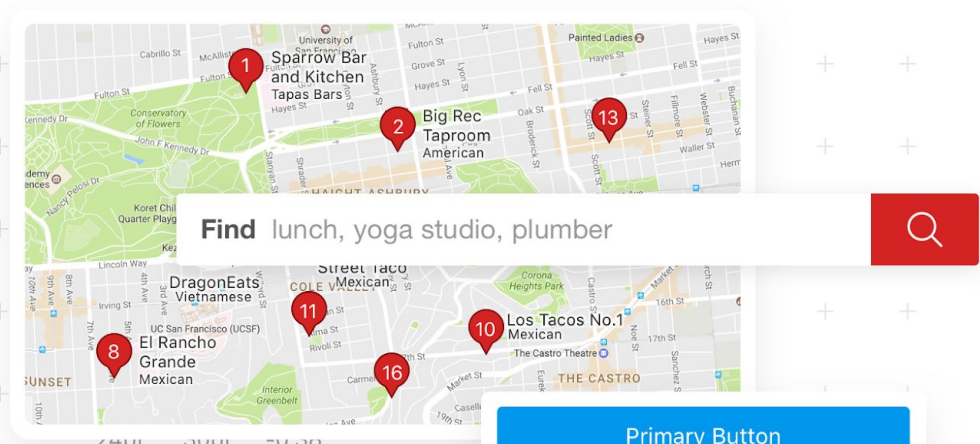
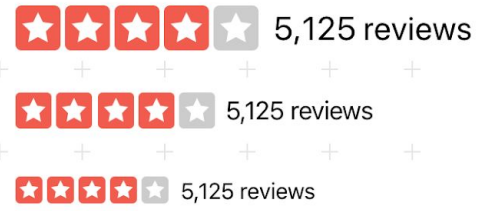
## Chapter 3: Creating & Using Tools

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S - 8pt  
M - 16pt  
L - 24pt  
XL - 48pt  
XXL - 64pt



Headline 1

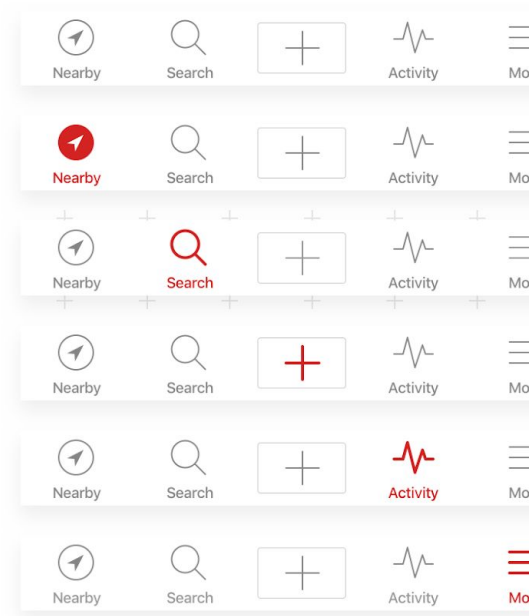
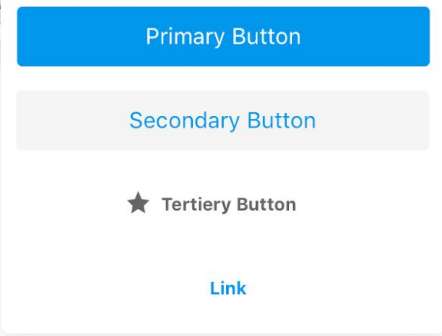
Headline 2

Headline 3

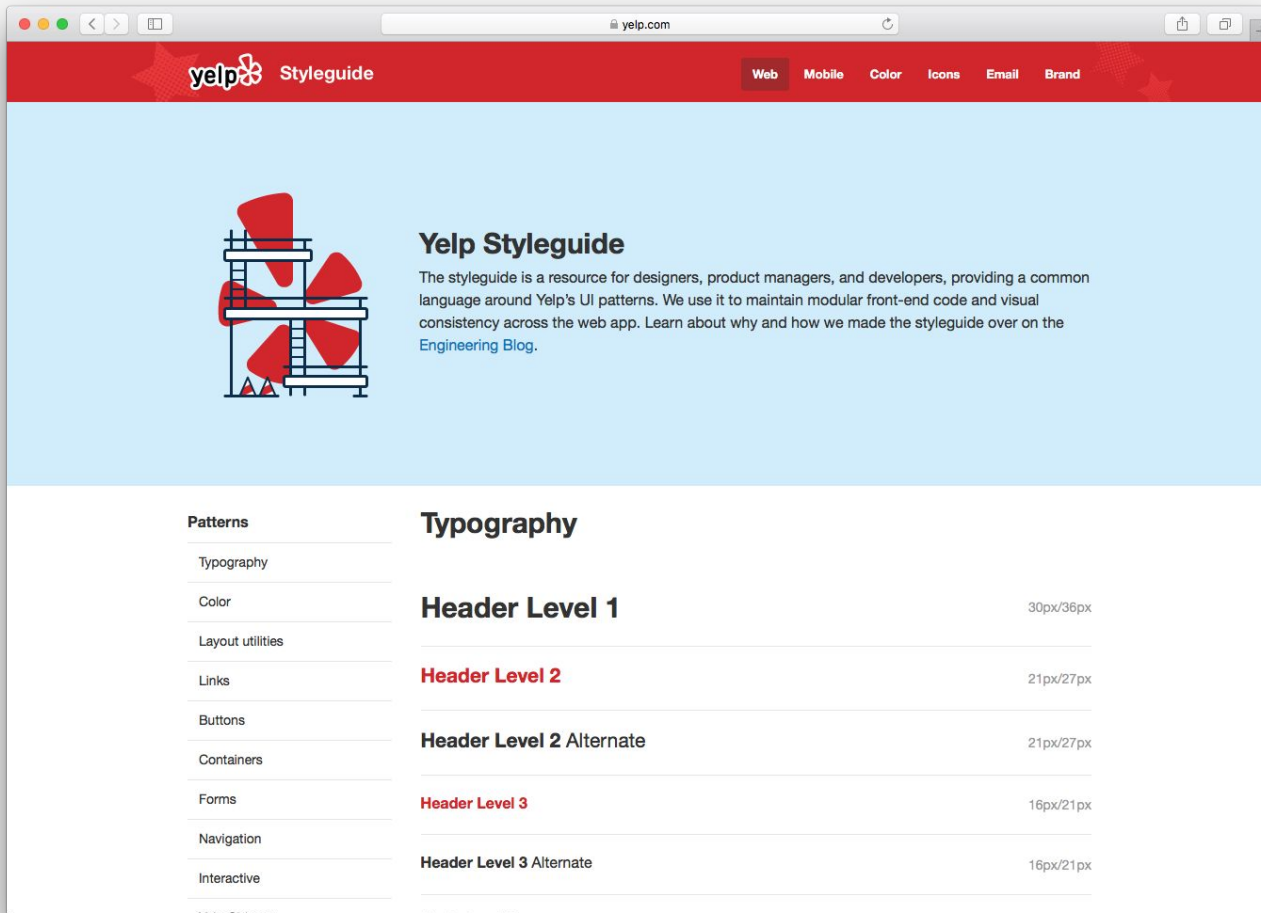
Paragraph / Paragraph Bold

Subtext / Subtext Bold

18pt 24pt -0.29  
15pt 18pt -0.09  
12pt 16pt -0.07



Black-Dark 050505	Gray-Dark 999999	Slate-Dark 092D4B	Blue-Dark 0070C0
Black-Regular 333333	Gray-Regular CCCCCC	Slate-Regular 336A8B	Blue-Regular 0099CC
Black-Light 4D4D4D	Gray-Light E6E6E6	Slate-Light 9AB5C5	Blue-Light A5D5E5
Black-Extra-Light 666666	Gray-Extra-Light F5F5F5	Slate-Extra-Light CDDAE2	Blue-Extra-Light DDEEFF



## Yelp Styleguide

The styleguide is a resource for designers, product managers, and developers, providing a common language around Yelp's UI patterns. We use it to maintain modular front-end code and visual consistency across the web app. Learn about why and how we made the styleguide over on the [Engineering Blog](#).

### Patterns

[Typography](#)[Color](#)[Layout utilities](#)[Links](#)[Buttons](#)[Containers](#)[Forms](#)[Navigation](#)[Interactive](#)[Yelp Objects](#)

## Typography

### Header Level 1

30px/36px

### Header Level 2

21px/27px

### Header Level 2 Alternate

21px/27px

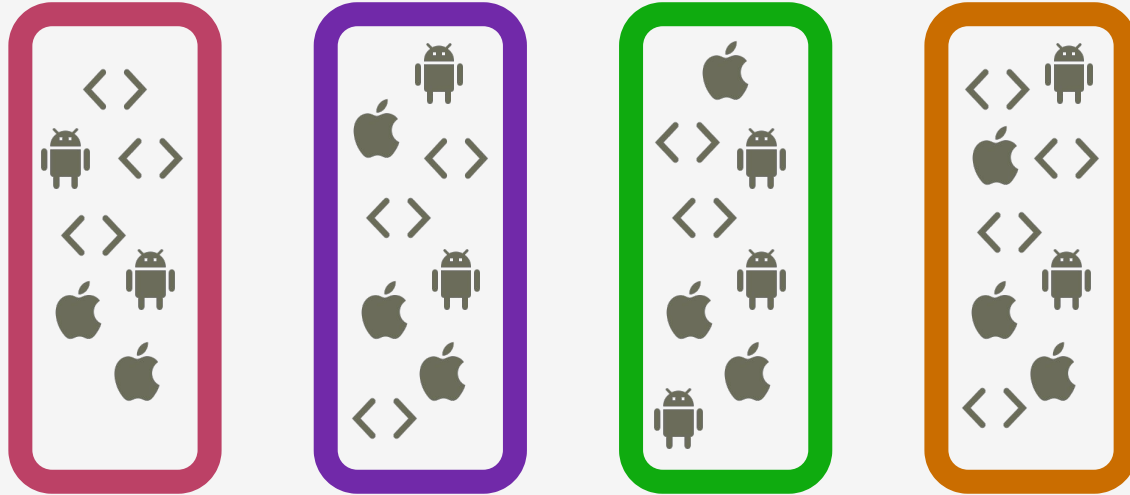
### Header Level 3

16px/21px

### Header Level 3 Alternate

16px/21px

# More cross-platform engineering teams



# Alert / MessageBox / BannerNotificationView / Page Alert

**Your photos have been uploaded!** You can [write a review](#) to go along with them.



**There's an error on this page.** Please fix before continuing.

**There's an error on this page.** We suggest fixing it or [doing this thing](#) instead.



**Today is a national holiday.** Call to check if this business is open.





## ACTION ITEM

Audit your design system's language if you have one

Start building one if you don't

The [Design Systems Handbook](https://designbetter.co/design-systems-handbook) is a great resource to get you started  
[designbetter.co/design-systems-handbook](https://designbetter.co/design-systems-handbook)



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What  
**Designers**  
Want  
You  
To  
Know

Their goal is to solve the **user's problems**

The **tradeoffs** they have to make

Design is far **less subjective** than you may think

They **care** about your engineering work too



**YOU WILL  
NOTICE THIS**

... before you notice this



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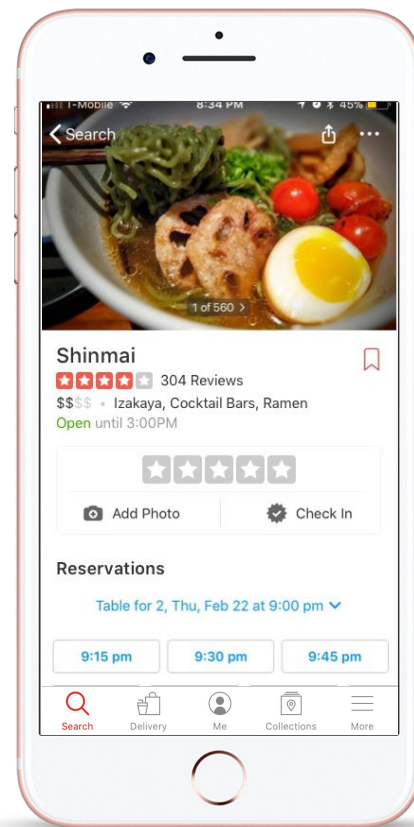
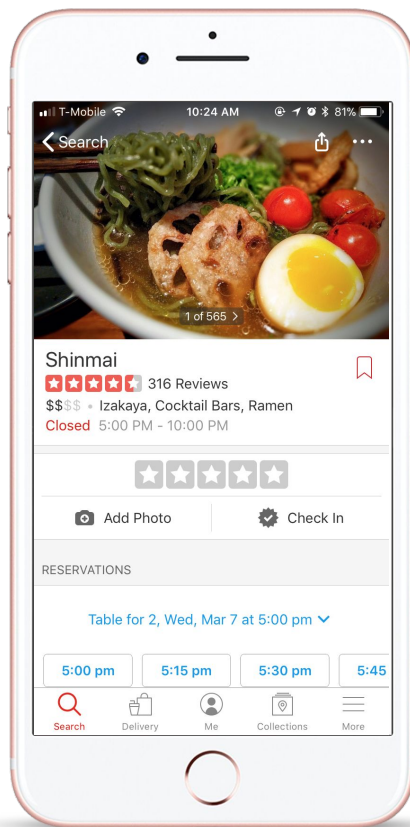
Sometimes a change that looks simple is actually far **more complicated** than you may think

Engineers love consistency too

Engineers also **care** about shipping a great product to the user



# What Engineers Want You To Know



What  
**Engineers**  
Want  
You  
To  
Know

Sometimes a change that looks simple is actually far **more complicated** than you may think

Engineers love consistency too

Engineers also **care** about shipping a great product to the user





## Our Shared Beliefs

Creating the  
**best possible product**  
for the user



## **ACTION ITEM**

**What  
Are  
Your**

shared beliefs & goals that unite your designers & engineers?

design & engineering principles?

company goals?

mission statement?

**Is everyone aware of these?**



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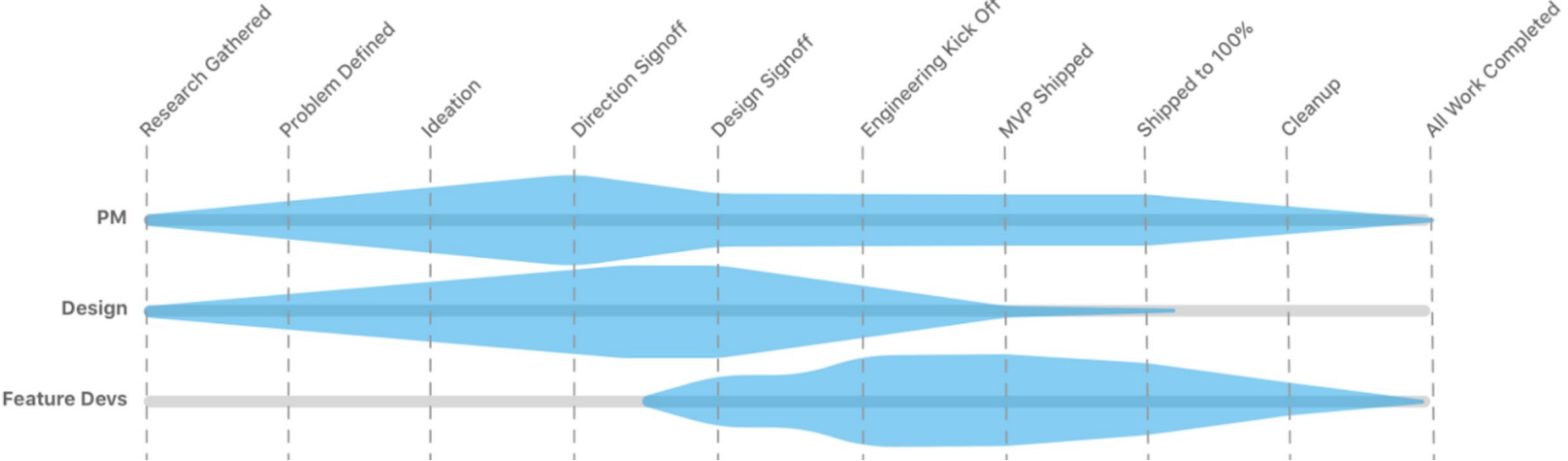


## Practical Tips

Involve engineers earlier  
in the design process



# PRODUCT DEVELOPMENT TIMELINE



## Practical Tips

Have designers &  
engineers sit together



## Practical Tips

Go on offsites together

3



## Practical Tips

Consider which design and engineering decisions need to be made earlier on





## Practical Tips

- ❏ Use
- ❏ Checklists
- ❏ When
- ❏ Giving
- ❏ Feedback



## Practical Tips

- ❏ What will it look like on different screen sizes?
- ❏ Are there any error states?
- ❏ Are the assets, such as icons and illustrations available?
- ❏ How does it look in other languages?
- ❏ Is the copy on the page finalized and does it adhere to our copywriting guide?



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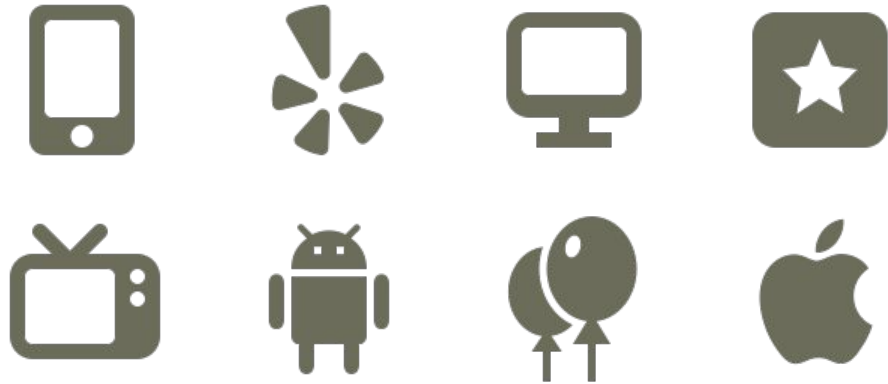
Chapter 2: Using Language  
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# YELP ICONS

a cross platform visual icon  
system



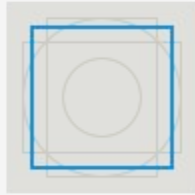
Joe hasn't made any lists yet.

Joe hasn't received any compliments yet.

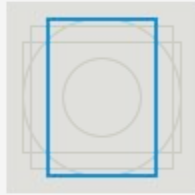
Where

Joe hasn't written any reviews yet.

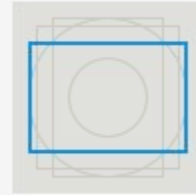




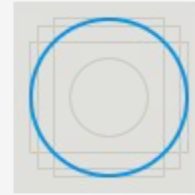
**Square**  
(18x18dp)



**Portrait**  
(14x20dp)



**Landscape**  
(20x14dp)



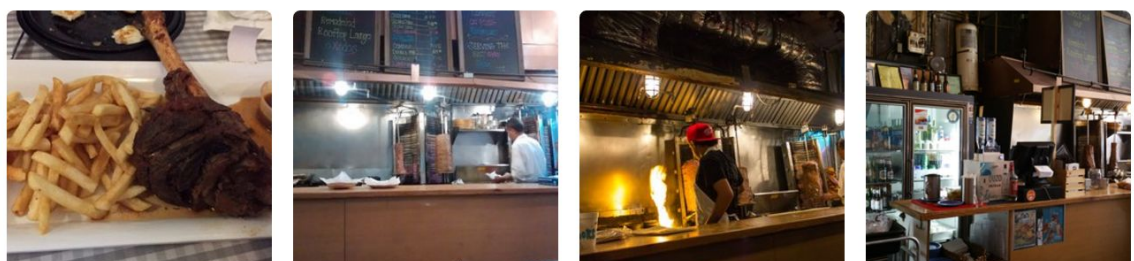
**Circle**  
(20dp)



- Restaurants >
- Bars >
- Coffee & Tea >
- Order Pickup or Delivery >
- Make a Reservation >
- ... More Categories >

**Golden Fleece Restaurant**  
★★★★☆ 128 reviews

- All (56) Food (27) Inside (10) Outside (7) Menu (3)



# Pancho Villa Taqueria

0.6 mi \$

★★★★☆ 1825 Reviews

Mexican

Hours Today: 10:00 AM - Midnight

Open

Write a Review

Photo or Video

Check In

Bookmark

Order Pickup >

\$7 for \$10 Deal >

\$2 off Any Super Burrito >  
Check in here to unlock this offer

BELL 4:21 PM 22%

Activity

**Pie Tisserie**  
★★★★☆ 14 Reviews  
706 Mission St, San Francisco

Messages 22

Reviews 6

30 Day Activity

947  
User Views 96%

107  
Customer Leads 96%

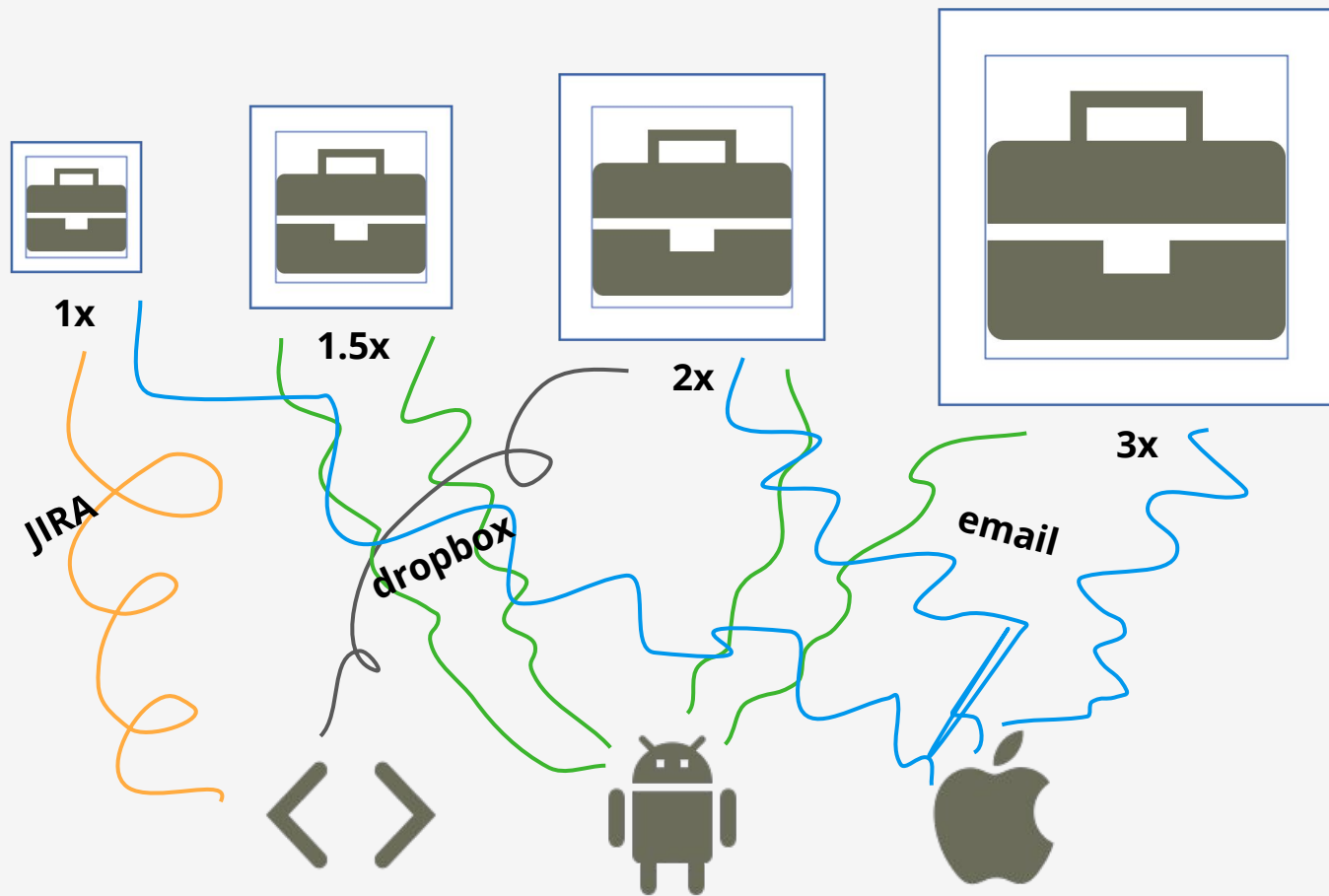
310  
Yelp Ad Clicks 96%

Recent Activity

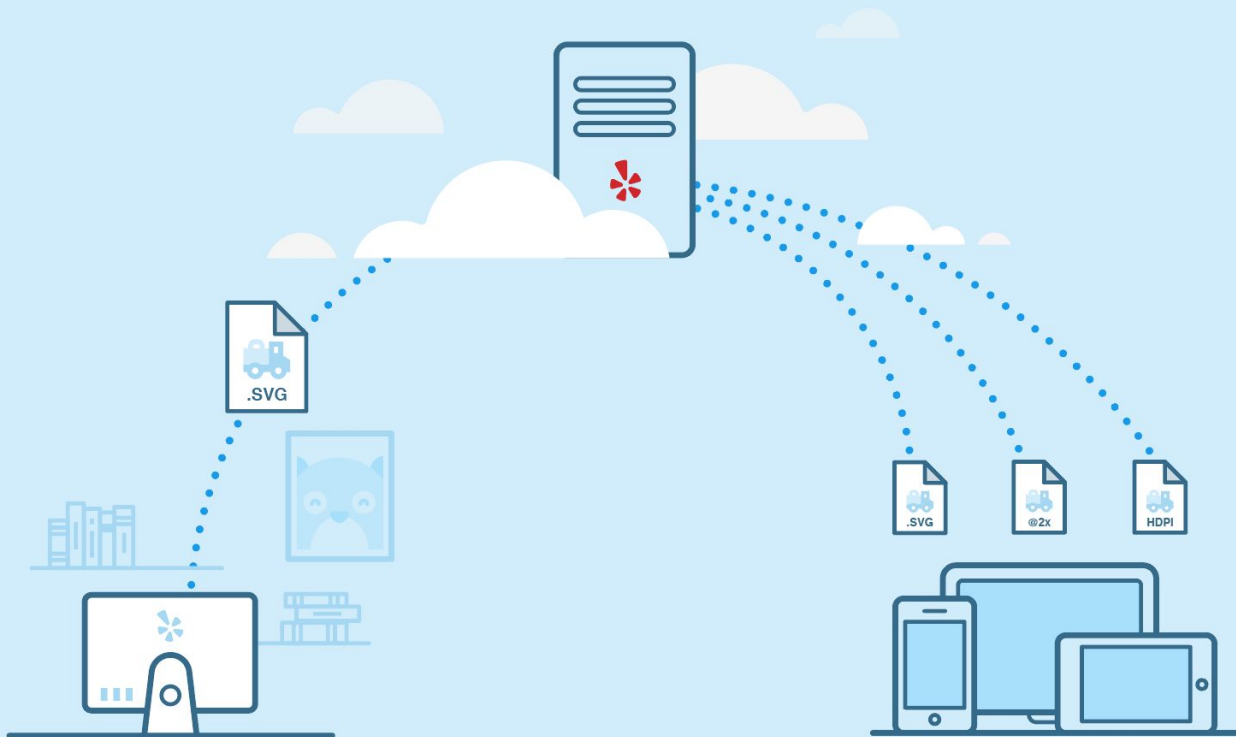
A Yelp user from San Francisco, CA **clicked on your website.**  
Today, April 2, 2014 12:01 pm via Yelp iPhone app

A Yelp user **viewed the map for your business.**  
Today, April 2, 2014 11:42 am via Yelp mobile site





# Icon Ally



# Single source of truth

[yelp.com/styleguide/icons](https://yelp.com/styleguide/icons)



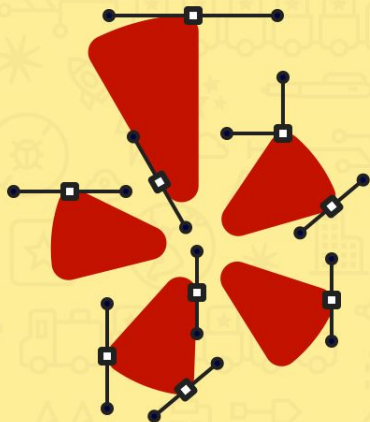
Styleguide

Web

Mobile

Icons

Brand



## Yelpicons

Yelpicons are a set of hand-crafted icons for use in web, iOS, and Android applications. The base sizes and colors are optimized for Yelp's UI patterns.

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# Your Existing Tools

- Make sure everyone has access
- Have 1 way of tracking these things
- Have a way of sharing in-progress work



**We can create tools that bridge the  
gap between disciplines**



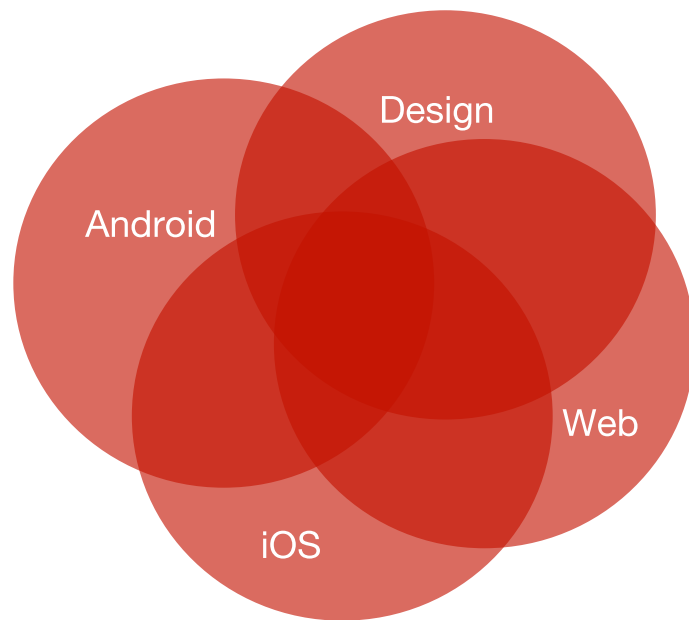
**Expectation**

**Design &  
Android &  
iOS &  
Web**





# Reality



## Challenges

- Any change requires coordination
- Inconsistent naming
- Designs don't always match
- Over time Design and Engineering styleguides drift apart



## Code



**Business Name**

0.02 mi

★★★★★ 52 Reviews

\$\$

123 Main St. City State

Category, Category

[Open](#)

## Design



**Business Name**

0.02 mi

★★★★★ 52 Reviews

\$\$

123 Main St. City State

Category, Category

[Open](#)



## Code



**Business Name**

0.02 mi

★★★★★ 52 Reviews

\$\$

123 Main St. City State

Category, Category

Open

## Design



**Business Name**

0.02 mi

★★★★★ 52 Reviews

\$\$

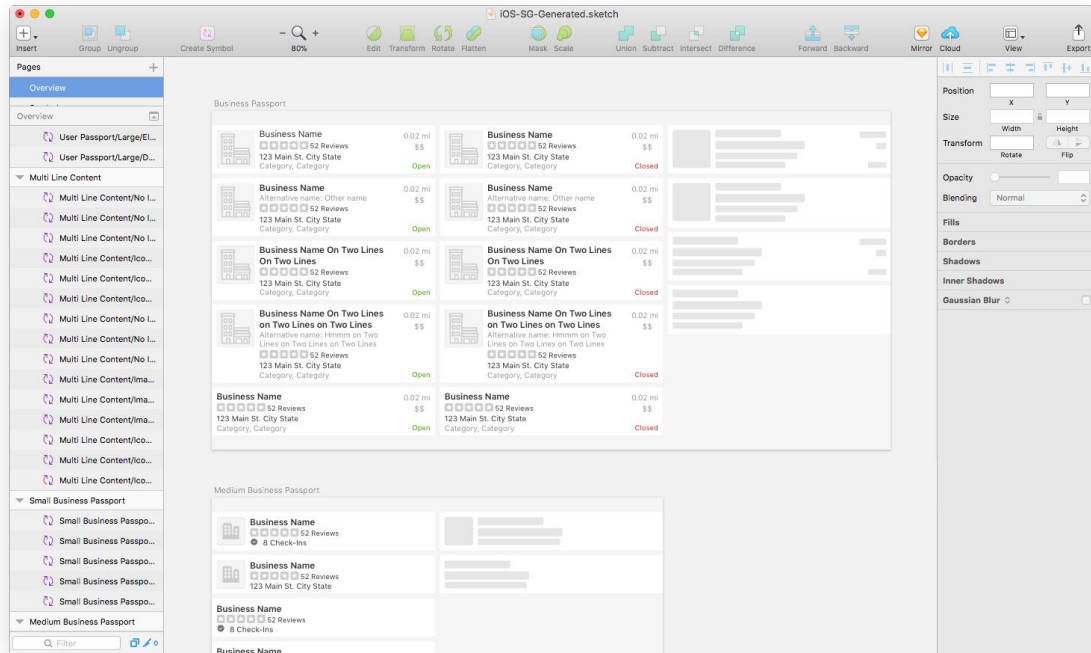
123 Main St. City State

Category, Category

Open



# Sketch Generator





**Business Name**

★★★★★ 54 reviews


123 Main St. City State

Category, Category

0.2 mi

\$\$\$





**Business Name**

★★★★★ 52 Reviews

123 Main St. City State

Category, Category

0.02 mi

\$\$

Closed



**Business Name**

Alternative name: Other name

★★★★★ 52 Reviews

123 Main St. City State

Category, Category

0.02 mi

\$\$

Closed



**Business Name On Two Lines On Two Lines**

★★★★★ 52 Reviews

123 Main St. City State

Category, Category

0.02 mi

\$\$

Closed



**Business Name On Two Lines on Two Lines on Two Lines**

Alternative name: Hmmm on Two Lines on Two Lines on Two Lines

★★★★★ 52 Reviews

123 Main St. City State

Category, Category

0.02 mi

\$\$

Closed

**Business Name**

★★★★★ 52 Reviews

123 Main St. City State

Category, Category

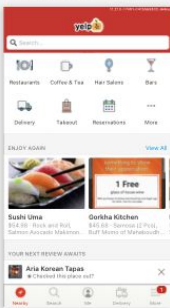
0.02 mi

\$\$

Closed



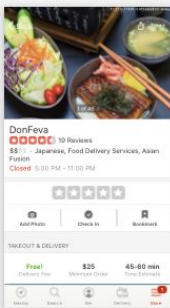
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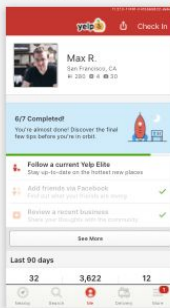
Window



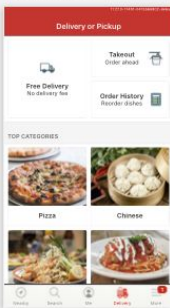
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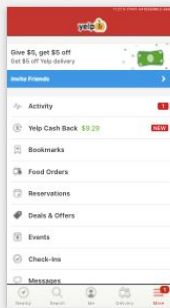
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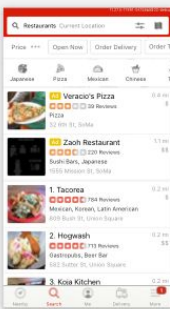
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Window



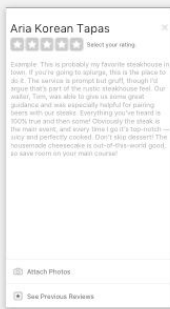
Window



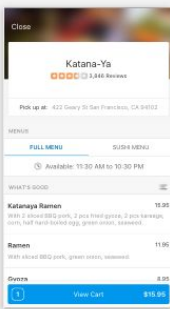
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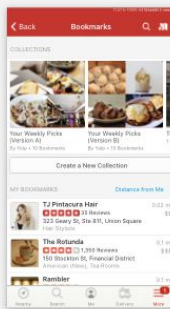
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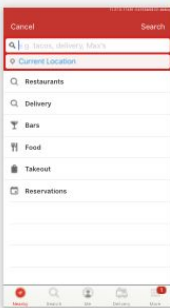
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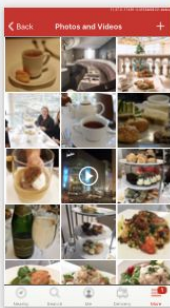
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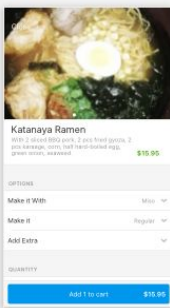
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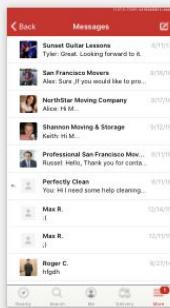
Window



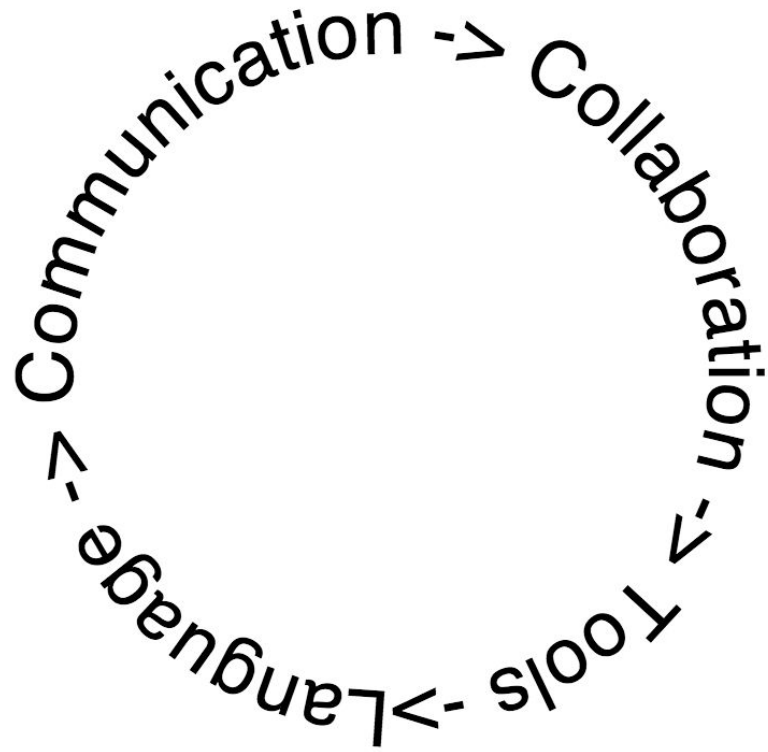
Window



Window



**Long  
Story  
Short**





# Long Story Short

**language > communication >  
collaboration > community  
(+ culture)**



A large, diverse group of young adults, likely employees or attendees at a company event, are gathered in a crowded indoor space. They are all cheering enthusiastically, with many raising their hands in the air, some making 'rock on' or 'V' hand gestures. The group is multi-ethnic and multi-gender, dressed in casual attire. The background shows a white wall and a dark metal railing, suggesting a multi-level venue like a convention center or a large hall. The overall atmosphere is one of high energy and celebration.

# Thank you

[yelp.com/careers](https://www.yelp.com/careers)

# Notes

Special thanks to everyone on the design & core teams @ yelp for doing all this awesome collaborative work over the past few years



“**Building a Visual Language.**” Airbnb.Design, [airbnb.design/building-a-visual-language/](https://airbnb.design/building-a-visual-language/).

Harari, Yuval N., et al. **Sapiens: a Brief History of Mankind.** Vintage Books, 2015.

Levitin, Daniel J. **The Organized Mind: Thinking Straight in the Age of Information Overload.** Dutton, 2016.

Logan, David, et al. **Tribal Leadership:** Leveraging Natural Groups to Build a Thriving Organization. HarperCollins, 2011.

Suarez, Marco, et al. “**Design Systems Handbook.**” Design Better, [www.designbetter.co/design-systems-handbook](https://www.designbetter.co/design-systems-handbook).

“**Yelp Styleguide.**” Yelp, [yelp.com/styleguide](https://yelp.com/styleguide).