

# Learn To Love the Front End

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**“Just because nobody  
complains doesn’t mean all  
parachutes are perfect”**

**-Benny Hill**

# **Front-end design vs Front-end web development**

**Front end design:  
How do we make it pretty?\***



# Front-end web development: How do we make it work?



**\*The user experience person  
Controls the blending of the look and feel  
Awesome ones know the code side  
and know the design side**



**Very different from the old days  
of static web development**

**Interactive web applications  
have changed the game**





# Ryan Stewart



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**Based in Seattle**

**Things I Like:**

**Beer**

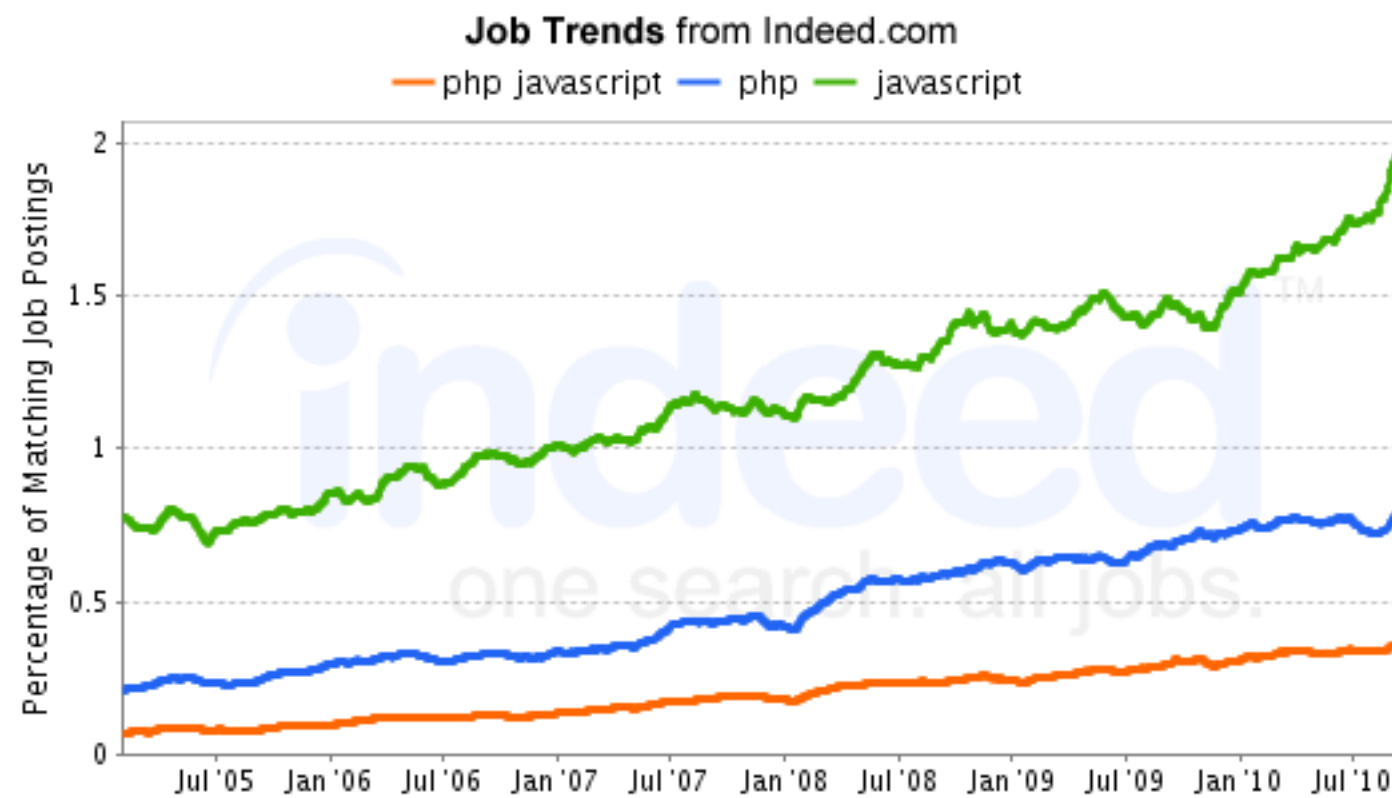
**Mountaineering/Hiking/Backpacking**

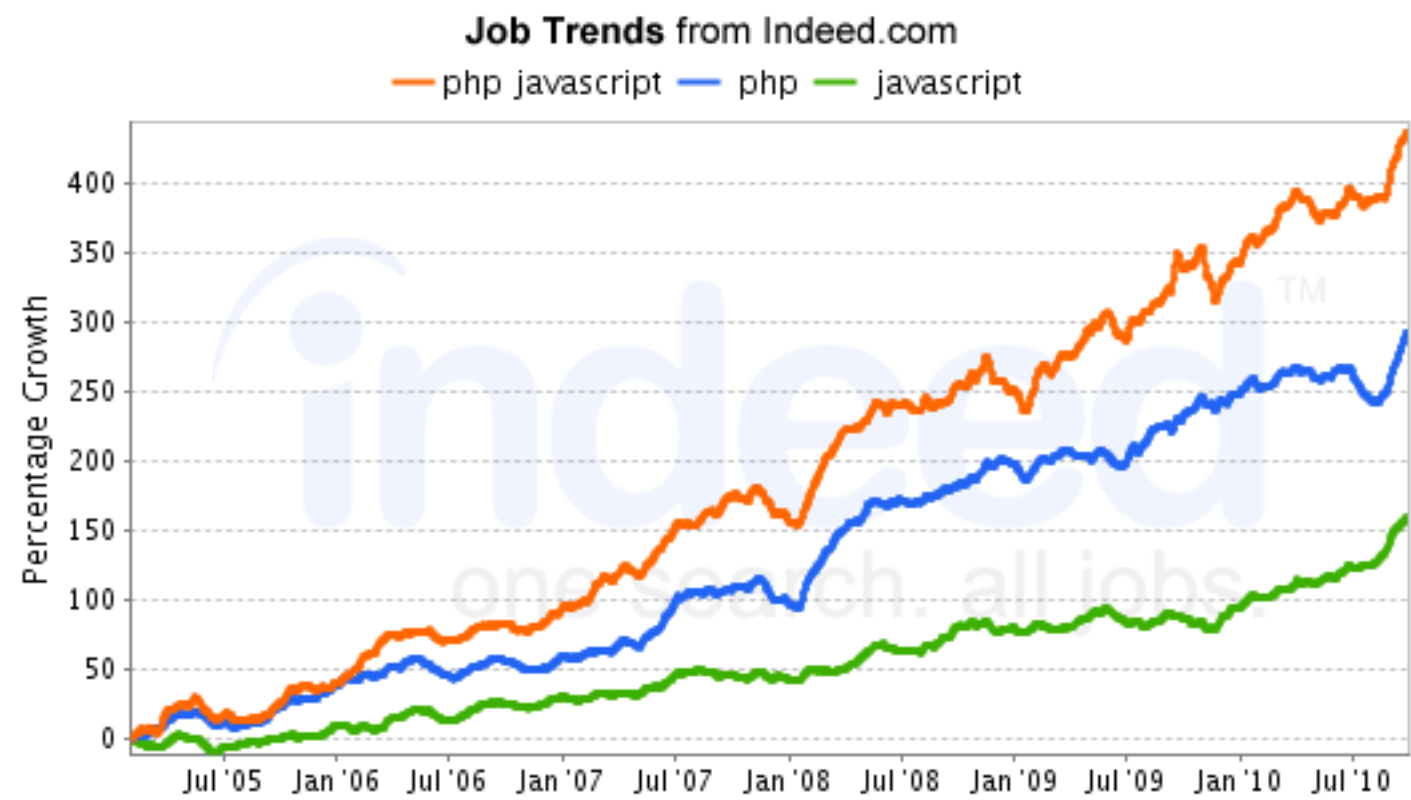
**Geolocation/Mapping stuff**

# **Agenda:**

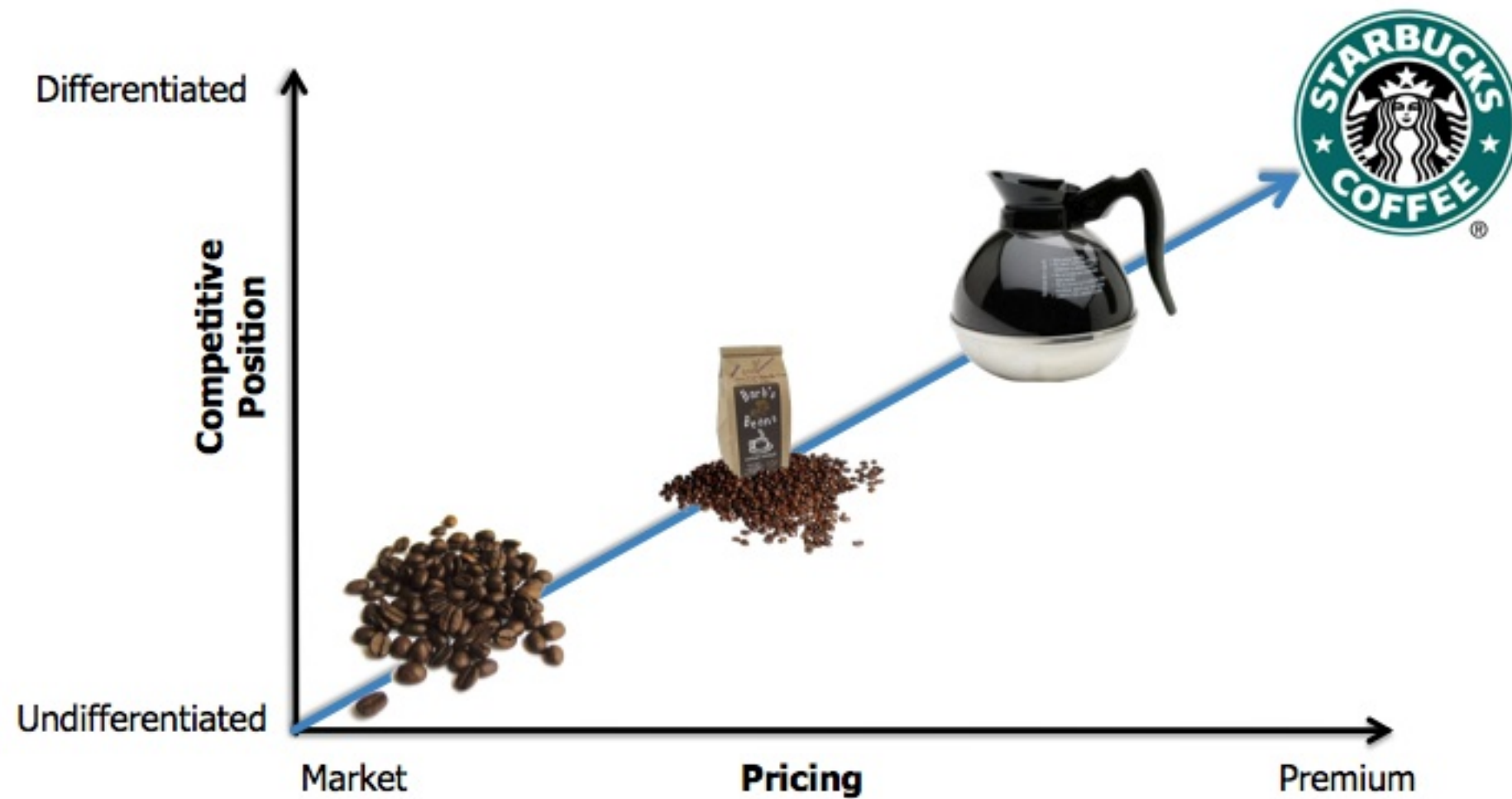
**Why you should love the front end**  
**Creating interactive web apps with JavaScript/HTML**  
**Flash as a next step**

**Why is this your responsibility?**





# The Experience Economy



# 4 Types of Business

**A commodity business charges for undifferentiated products.**

**A goods business charges for distinctive, tangible things.**

**A service business charges for the activities you perform.**

**An experience business charges for the feeling customers get by engaging it**

# The Experience Economy and Beer



## The commodity: Malted Barley



**Undifferentiated product: cost per beer  $\approx$  \$.25**

# The good: Generic Beer



Distinctive, tangible thing: cost per beer  $\approx$  \$1

## The service: Microbrews



Extra activities: cost per beer ~= \$1.50



# The Experience: The Brewpub





# The Experience: The Brewpub



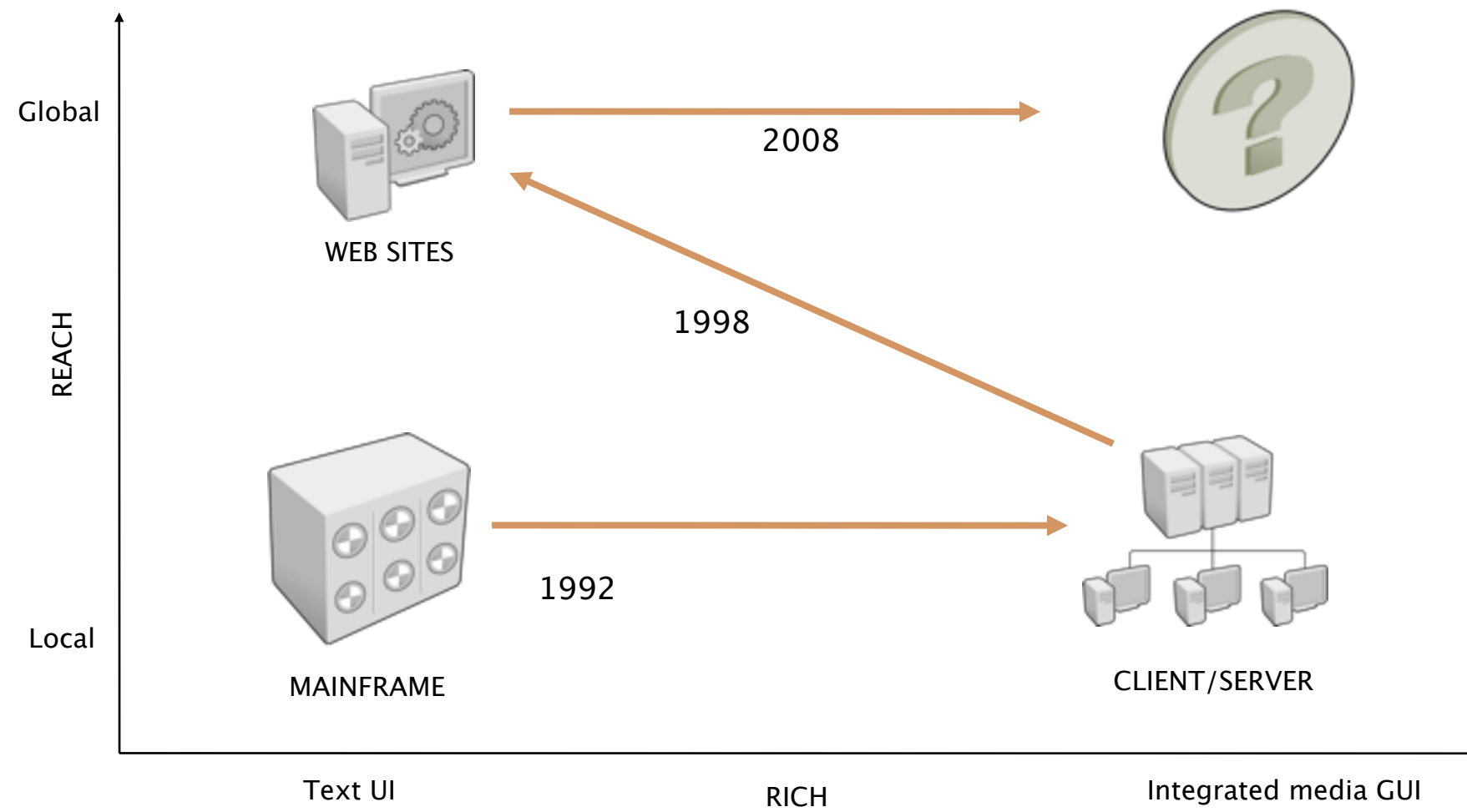
Charging for feelings: cost per beer  $\approx$  \$4.00

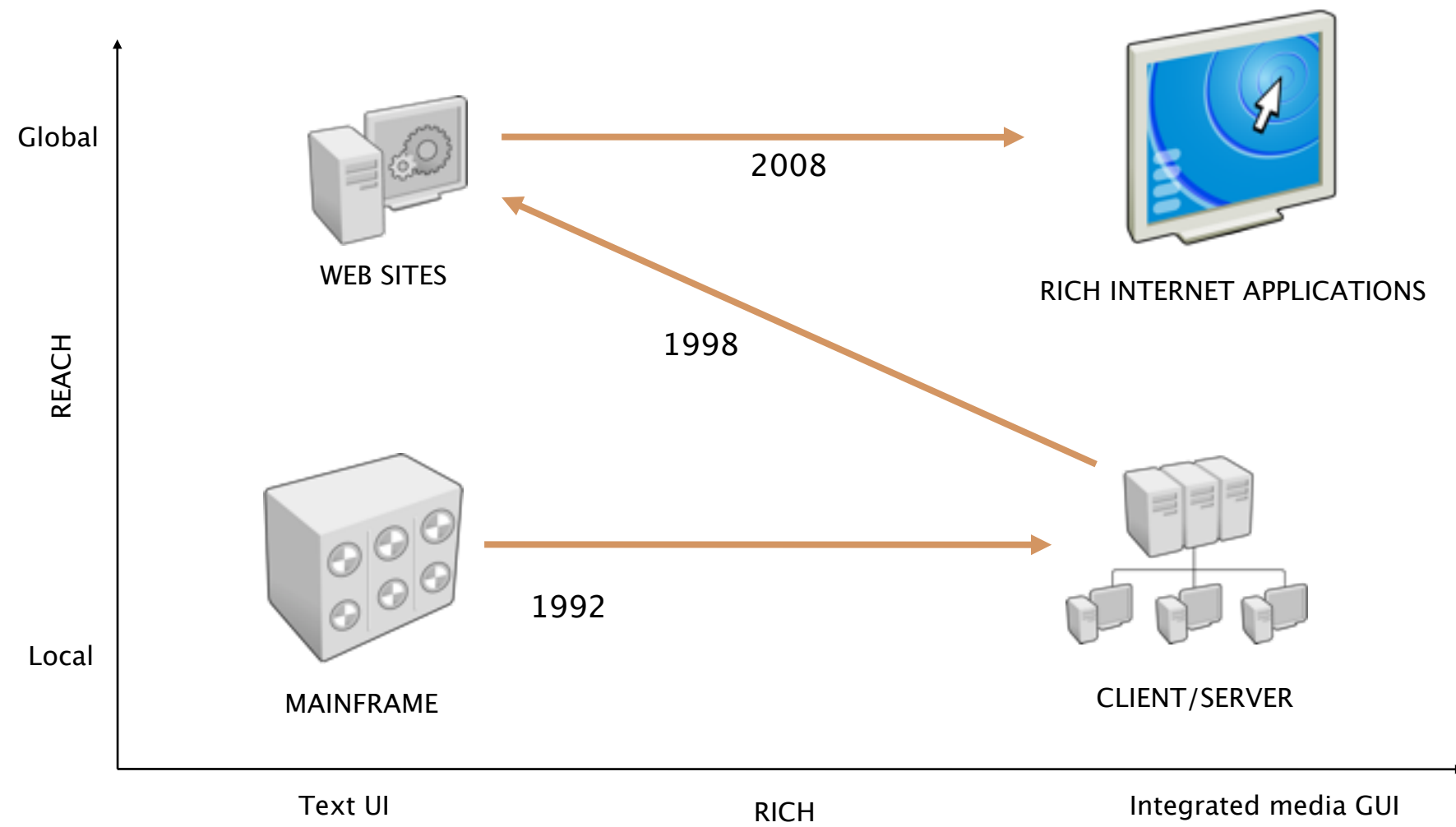
**Where do you fit?**

**Without the front end you're  
quickly becoming the commodity**

**Where do we start?**





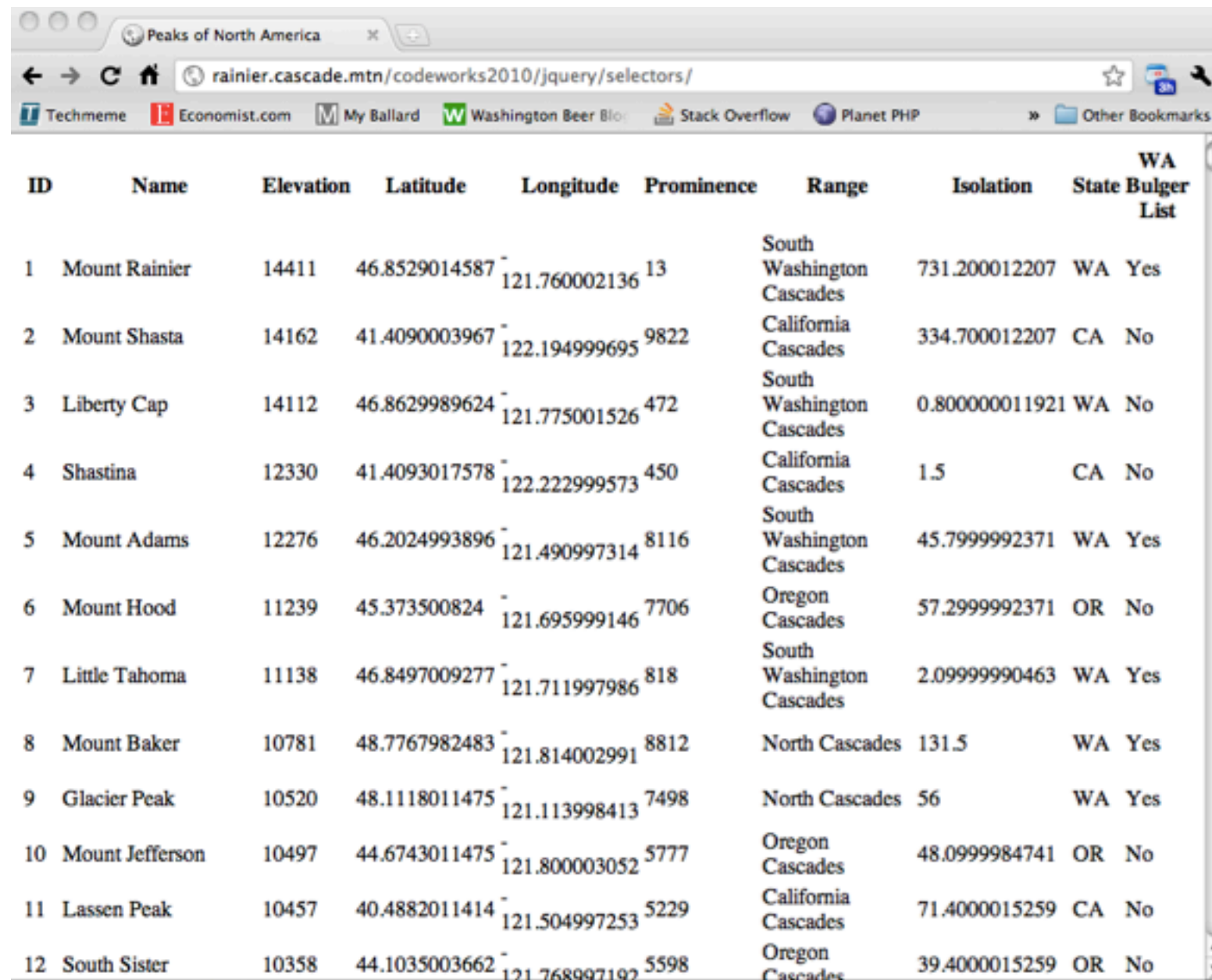


**Bring the desktop metaphors  
to the web**

**Drag and drop**  
**Complex components**  
**No page refresh**

# Starting off on the client:

## Turning boring HTML into a web application

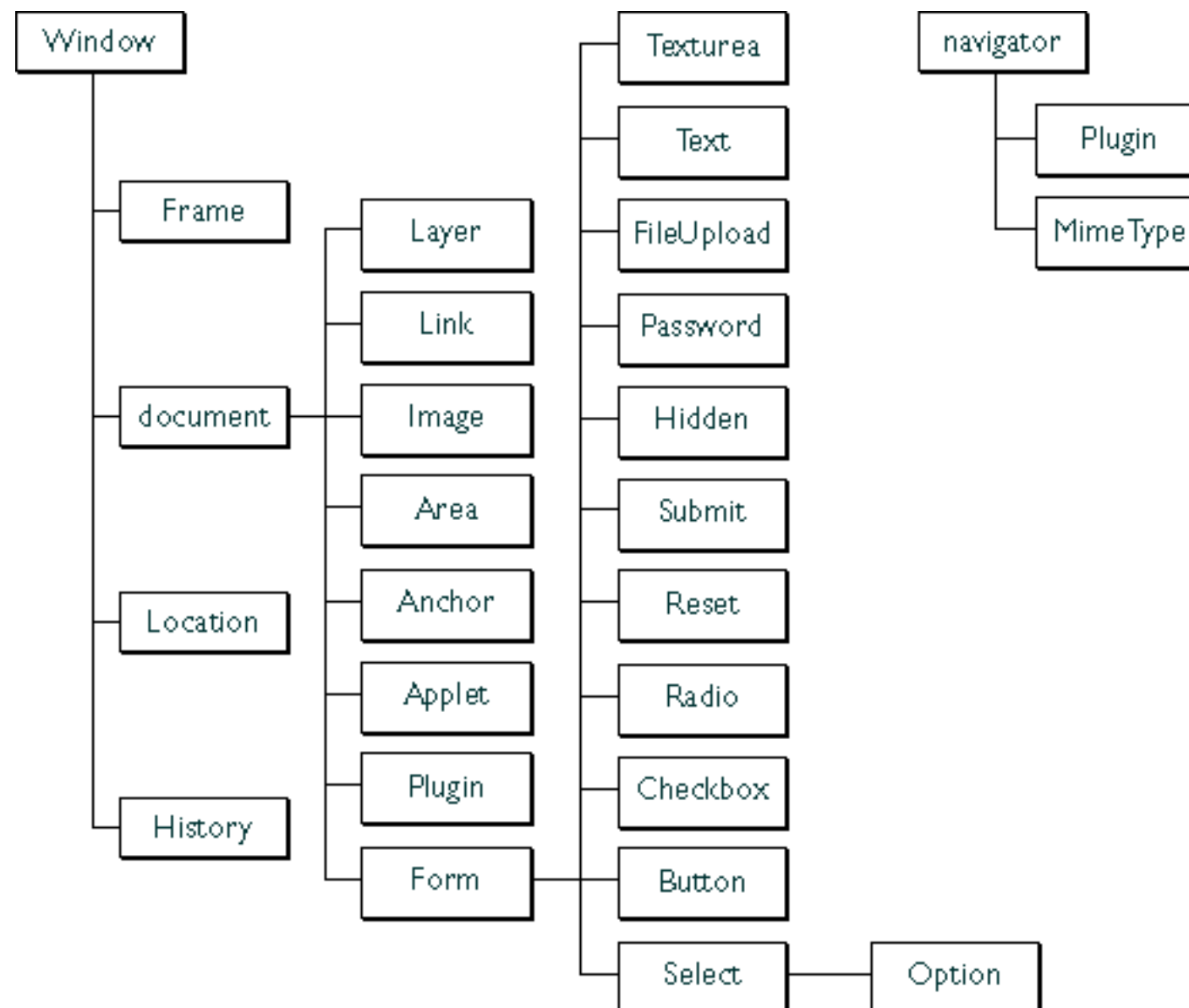


ID	Name	Elevation	Latitude	Longitude	Prominence	Range	Isolation	State	Bulger List
1	Mount Rainier	14411	46.8529014587	121.760002136	13	South Washington Cascades	731.200012207	WA	Yes
2	Mount Shasta	14162	41.4090003967	122.194999695	9822	California Cascades	334.700012207	CA	No
3	Liberty Cap	14112	46.8629989624	121.775001526	472	South Washington Cascades	0.800000011921	WA	No
4	Shastina	12330	41.4093017578	122.222999573	450	California Cascades	1.5	CA	No
5	Mount Adams	12276	46.2024993896	121.490997314	8116	South Washington Cascades	45.7999992371	WA	Yes
6	Mount Hood	11239	45.373500824	121.695999146	7706	Oregon Cascades	57.2999992371	OR	No
7	Little Tahoma	11138	46.8497009277	121.711997986	818	South Washington Cascades	2.09999990463	WA	Yes
8	Mount Baker	10781	48.7767982483	121.814002991	8812	North Cascades	131.5	WA	Yes
9	Glacier Peak	10520	48.1118011475	121.113998413	7498	North Cascades	56	WA	Yes
10	Mount Jefferson	10497	44.6743011475	121.800003052	5777	Oregon Cascades	48.0999984741	OR	No
11	Lassen Peak	10457	40.4882011414	121.504997253	5229	California Cascades	71.4000015259	CA	No
12	South Sister	10358	44.1035003662	121.768997192	5598	Oregon Cascades	39.4000015259	OR	No

# HTML, JavaScript, CSS: The trifecta of crazy



# First problem: Managing the DOM



**The key to being able to create a web application  
is the ability to manipulate the DOM.**



## Problem two: Dealing with cross-browser issues



**HTML and JavaScript often work differently  
in different browsers.**

# JavaScript frameworks take care of a lot of this burden





# Using jQuery to enhance the experience



# The beauty of progressive enhancement

**What do you do when the user has JS  
turned off or their browser doesn't support it?**



**Progressive enhancement allows us to  
add interactivity while leaving the core  
functionality and data intact**





# Manipulating the DOM: Selectors

# What about CSS3?

**CSS3**

# Animation with jQuery

**Adding some desktop-ish  
functionality to our table**



# jQuery's beautiful not-so-secret: Plugins

Show  entries

Search:

ID	Name	Elevation	Latitude	Longitude	Prominence	Range	Isolation	State	WA Bulger List
1	Mount Rainier	14411	46.8529014587	-121.760002136	13	South Washington Cascades	731.200012207	WA	Yes
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Showing 1 to 10 of 370 entries

**Pixel-perfect experience**  
**Real-time Data**  
**Rich Visualizations**  
**Instant Collaboration**



**These are things the Flash Player  
was built to solve**



# Be cautious with Flash



**Flex was created to bring  
that to developers**



# Data visualization with Flex



# Real-time collaboration

**Adobe has a service called  
LiveCycle Collaboration Services**

**The goal is to easily enable  
real-time collaboration  
in any Flex/Flash application**

# **Building a collaborative whiteboard with video and text chat in 30 lines of code**

**Front end development can  
be a lot of fun**

# Thank you! Questions?



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