# First Things First: IA and CSS

Due to advances in web development technologies, we must reexamine and modernize the practice of information architecture.

#### Presented by

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  - ☐ Yahoo!, Inc

# Background & Context

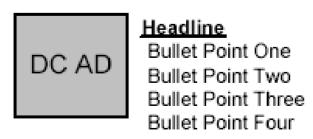
- An IA and a Webdev both arrived at this conclusion
- Need is pressing in big companies like Yahoo!
  - Internal need for speed and efficiency
  - Discreet teams and specializations
- Makes sense for individuals too
  - ☐ Probably already doing it...

#### Where We've Been

Web Development

# Meaningless Translations

- Tag soup is bad. Semantic HTML has been used for presentation, presentational HTML has been used for meaning. To get by, we've been translating designs into a rats nest of **meaningless** markup.
- All relationships, precise specifications, and semantic meaning are lost in this destructive translation process.



#### Meaningless Translations

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```
<h4>Header</h4>

<a href="">list contents</a>
<a href="">list contents</a>
```

#### Meaningless Translations

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- All relationships, precise specifications, and semantic meaning are lost in this destructive translation process.

```
Module Header
 >
   &#149:</-- list bullet -->
         <a href="url">list contents, that wrap pretty</a>
       •</-- list bullet -->
         <a href="url">list contents, that wrap pretty</a>
```

# Abusing, Hacking and Confusing HTML

Aggressive optimization makes documents unreadable

```
href="/g?s=^IXIC&d=c&k=c4&t=ld"><img
alt="Nasdag Intraday" border=0 src="http://ichart.vahoo.com/t?s=^IXIC" width=192
height=96></a><a
href="/g?d=t&s=^DJI"><small> <nobr>Dow</nobr></small></a><td
nowrap><small>10,208.80</small><small><font
color=ff0020>-38.79</font></small><small><font
color=ff0020>(-0.38%)</font></small><a
href="/q?d=t&s=^IXIC"><small><nobr>Nasdaq</nobr></small></a><td
nowrap><small>1,914.88</small>nowrap><small><font
color=ff0020>-16.78</font></small><small><font
color=ff0020>(-0.87%)</font></small><a
href="/q?d=t&s=^GSPC"><small><nobr>S@amp;P 500</nobr></small></a><td
nowrap><small>1,111.47</small><small><font
color=ff0020>-3.67</font></small><small><font
color=ff0020>(-0.33%)</font></small><a
href="/q?d=t&s=^TNX"><small>10-Yr Bond</small></a><td
nowrap><small><4.484%</small><small>+0.005</small>
align=right><a href="/q?d=t&s=^TV.N"><small>NYSE
align=right><a href="/g?d=t&s=^TV.0"><small>Nasdag
Volume</small></a><small>2,116,805,000</small>tr><
align=center colspan=4><font face=arial size=-2>Quote data provided by
Reuters</font><font face=arial
size=-2><b>Brokers:</b>
```

# Abusing, Hacking and Confusing HTML

- Aggressive optimization makes documents unreadable
- Pixel-Precise, "Canvas Based" Design
  - □ Locks content into single device / purpose / visualization

```
<hr size=1 noshade width=175></TD>
<TD_WIDTH=10></TD><Center><a
href="http://us.rd.yahoo.com/auctions/frontpage/northnorth/*http://user.auctions.shopping.y
ahoo.com/showcase/99noreserve04"><IMG
SRC="http://a708.g.a.yimg.com/7/708/499/000/auctions.yimg.com/phtml/auc/us/images/akamai5/s
ummer sale325.gif" WIDTH=325 HEIGHT=90 BORDER=0 alt="Summer Sale Showcase"></a></center>
<center>
<td
height=15>
<small><b>Autos Spotlight</b></small>
<td
height=1>
<TABLE WIDTH="325" BORDER=0 CELLPADDING=2 CELLSPACING=2>
<tTD VALIGN=TOP align=center width="33%"><A
href="http://us.rd.yahoo.com/auctions/frontpage/north3spots/motorcycles/*http://list.auctio
ns.shopping.vahoo.com/26308-category-leaf.html"><IMG border="1" alt="Motorcycles" height=75
```

# Abusing, Hacking and Confusing HTML

- Aggressive optimization makes documents unreadable
- Pixel-Precise, "Canvas Based" Design
  - □ Locks content into single device / purpose / visualization
- Results in a relatively useless and unimportant specialization.
  - Web Dev's make it work, but don't add understanding or even preserve meaning

#### **Pointless Collaboration**

- Since
  - Webdev's and IA's were not neighbors in the process
  - Webdev's work was mysterious alchemy
  - Webdev's work carried/preserved no IA meaning
- There hasn't been a pressing need for collaborative deliverables or coordinated/co-informed work
- Until now...

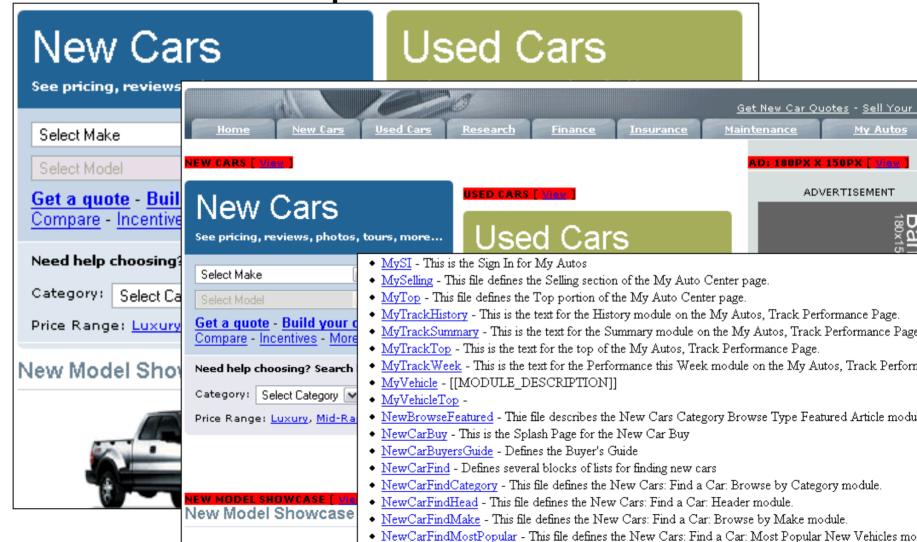
#### Where We Are

Web Development

#### Standards-Based Web Development

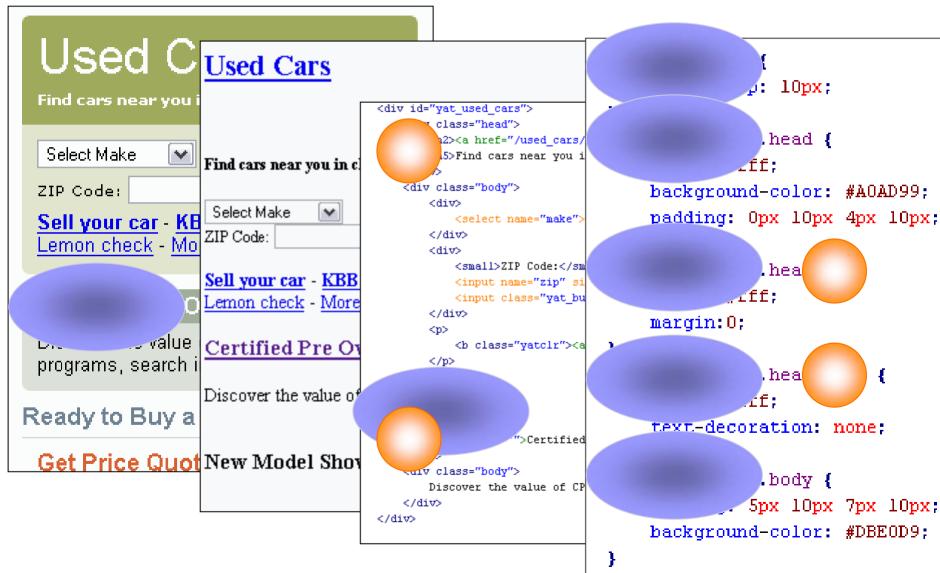
- Separation of Structure, Presentation and Behavior
- "Layered Semantic Markup" with "Graded Browser Support"
- Progressive Enhancement build upon meaningful roots (Champeon and Finck)
- Semantics now play central and crucial role, allowing HTML to be explicit and relational
- It's now possible for context, meaning and intent to survive the entire development process

# Modular Development



NewCarFindMy - This file defines the New Cars: Find a Car: Membership/My Recent module.

# Rich Meaning Within Each Module



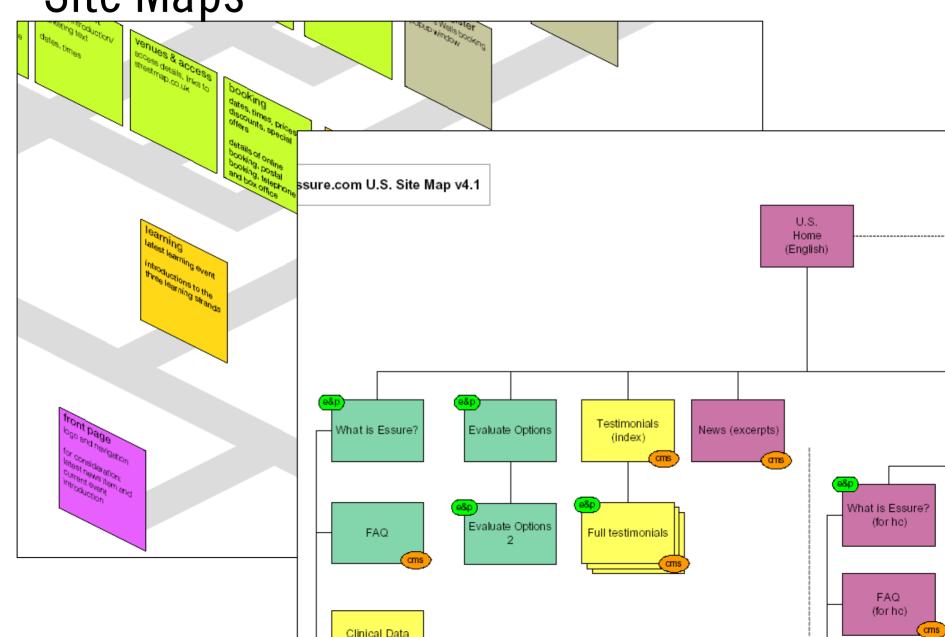
#### Answered the Call

- We have answered the call to "properly separate the components [so we can] enable different strategies"
- There are now multiple components and layers, yet certain [semantic] information persists.
- Persistent elements should be identified as early as possible in the process
- Enter: Information Architecture...

#### Where We've Been

**Information Architecture** 

Site Maps



#### Wireframes

Work Services About Us Contact if.com.au To get the most from your online business. Wireframe design you have to start at the beginning: What do USERS Want? Studio Sungo can help define those needs, and then design the experience that makes your audience happy, makes Sec your brand stronger, and makes your web investment pay off. 1ogo branding. brading "vou are here" What can we do for you? image image what's new page content subscribe links to case study 2 links to case study 3 dy 1 advertise main (Shepard Assoc.) (InformationWeek) (can scroll) calendar navigation current issue Registration | User Flow ion Week Main Registration page ittle buckets hold Standard AltaVista Navigation -Network Nav content? magazine profile Welcome to Become an AltaVista Rewards Member Today! awards Earn your first 250 points by completing sections 1, 2 & 0 minor AltaVista Rewards! contact us supporters/partners navigation Choose The Country You Live In @studiosungo.com The AltaVista Rewards program credits United States ▼ International Restrictions recognizes and rewalds our Members copyright for their lovalty. privacy In three easy steps you start earning up Choose your AltaVista Member ID and Password 1500 points for registering For both MemberiD and password, begin with a letter and include only 1000 points per day for browsing letters (a-z), numbers (0-9), and the underscore (1). Do not include any spaces: AltaVista Shopping 25 points for every click on a qualified Choose A Member ID example: bigdawg\_24 merchant link 45 points for every 51 spent with a Plassword qualified merchant Your AltaVista membership also entitles Confirm Password vou to Free internet access If you forget your passivors, we'll ask you to answer one of the questions below Free Email A personalized Startup page on My Password Reminder Question Livet Password Reminder Answer example Rover Automatic alerts about stock or neva events Real time stock quotes And we'll send your password to the email address indicated here. And much more! Current Email Address If you don't have an Email address, you can set one up now Privacy Policy Yes, sotivate an AtaMsta email address. Your Email address will be [AtaMsta Member Name]@atavista.com AltaVista will never sell or distribute peisonally identifiable information to Customice Your AltaVista 3

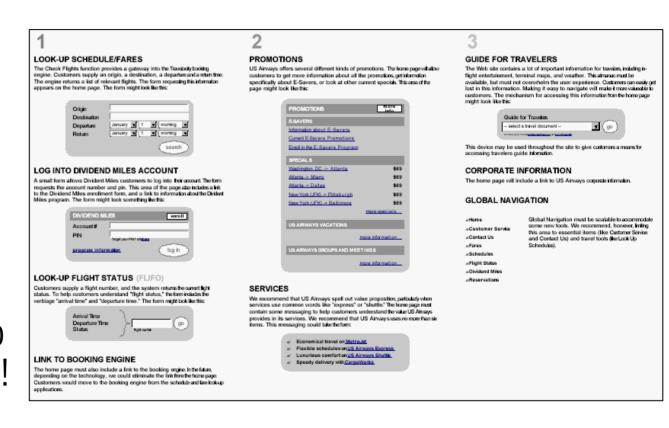
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# Good, but not quite right...

- Too precise for Visual Designers
  - □ Communicate / influence decisions that Visual Designers are tasked with.
- Too vague for Web Developers
  - Don't effectively specify hierarchy, semantics, grouping or relationships.

#### Dan Brown's Wireframes — Getting Close!

- Much better at communicating hierarchy and relationship
- But still not communicating the modern info that today's Web Developers need!



# We've We're Going...

**Information Architecture** 

#### Five new things for Information Architecture

- Make all references CSS compatible
- Identify hierarchies
- Catalog similarities and relationships
- Define explicit markup
- Design additional semantics

# 1) Make all references CSS compatible

- Pages, containers, widgets and content should be referenced with smart, CSS-compatible names.
  - □ wo: Use in the structure, presentation and behavior
  - AII: Reference throughout progress tracking, QA testing, customer care, and more...
- Therefore, IAs should identify and use them on sitemaps, content inventories, wireframes, and functional specs,...

# 1 -> Incompatibility is inefficient

- References like "10.1.7" or "account registration page", since it can't be sustained, are inefficient and result in detrimental translation
- If you're making up a name, make it something we can all use

#### $1 \rightarrow$ Compatible names are:

- A single word
  - □ Consider CamelCase for legibility
    - AccountRegistationPage instead of accountregistrationpage
- About the content
  - ☐ About meaning, not presentation or placement
    - "promoHeader" not "rightsideBlueHeader"
- May not begin with a numeral
  - CSS technical constraint
    - "teaser3" not "3teaser"

# 2) Identify hierarchies (two types)

- Define the Source Order
  - ☐ In what order is the pure content (without its presentation)?
    - Think about how it will be read without presentation. You have to think: How is a person moving thru this page? What's the task analysis of the page? How should it look on my cell phone or sound in my screen reader?
- Define the order of Headers (h1, h2,...h6)
  - □ (Don't need to be in order in the source, nor sequential)

#### 2 -Sometimes this uncovers issues

What are there two H1 tags that say the same thing?



#### 3) Catalog similarities and relationships

- What can be reused? What characteristics are shared?
  - □ Each container is unique (News before Marketplace)
  - ☐ Yet each are similar, because they're all module headers
  - □ Another tool to articulate meaning; currently Webdev task



#### 3 → Relationships

- The life of a scoreboard
  - #nba .scoreboard, #nfl .scoreboard,
    #nhl .scoreboard
- We can target things on the page not just thru uniqueness and classification, but also thru relationship.
- Also consider medium and device
  - ☐ Which class of things stay for the Print version?







# 4) Define explicit markup

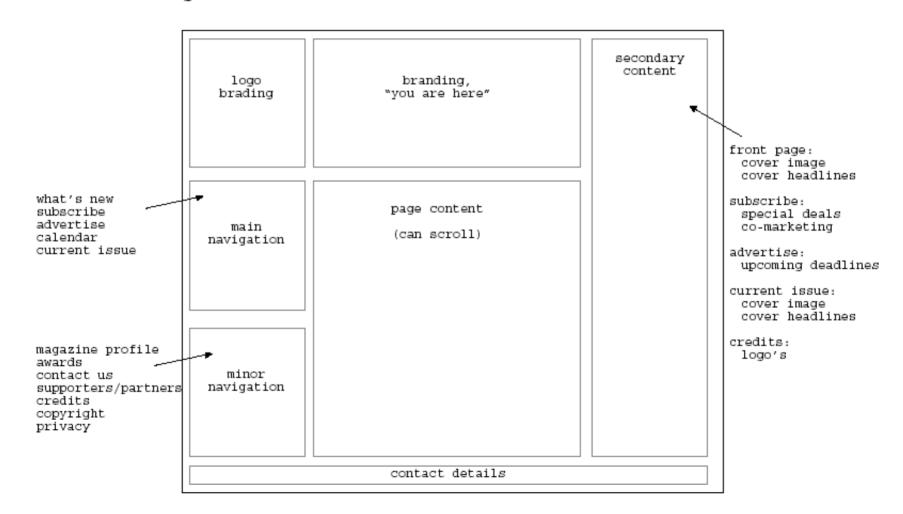
- Don't be afraid... only about 30 tags
- Markup is just a way to explicitly define content
  - □ **Lists:** UL, OL, DL
  - □ **Phrase elements:** EM, STRONG, DFN, CODE, SAMP, KBD, VAR, CITE, ABBR, & ACRONYM
  - Forms: Radio button or Checkbox
  - ☐ Headers: H1...H6

#### 5) Design additional semantics

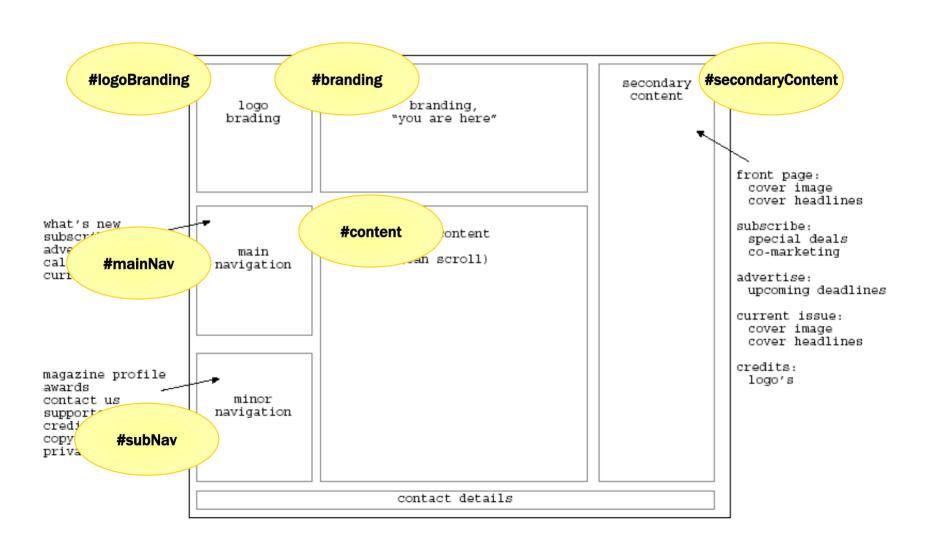
- Squeezing semantic meaning from HTML is a good start, but a richer vocabulary is useful.
  - Content types and meta info
    - HTML's **cite** tag only gets us so far, we need "author", "publisher", "date", "source"
  - States (for navigation)
    - selected, default, disabled, active
  - □ Position (within lists)
    - first, last
  - Relationships
    - parent, child, sibling
  - ☐ "glue" (from Movable Type)
- Consistent use "grants" semantic meaning
- XML still isn't primetime; it must be represented in HTML

#### So what does this mean: Wireframes

if.com.au Wireframe design

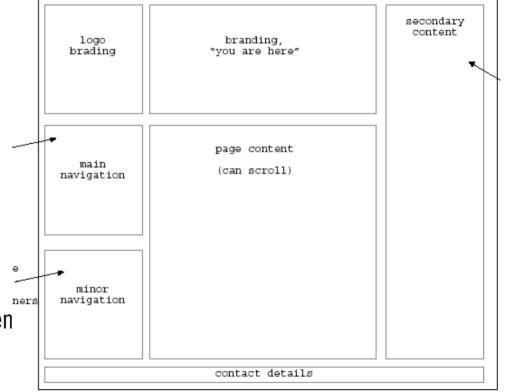


# New additions -> Compatible Names

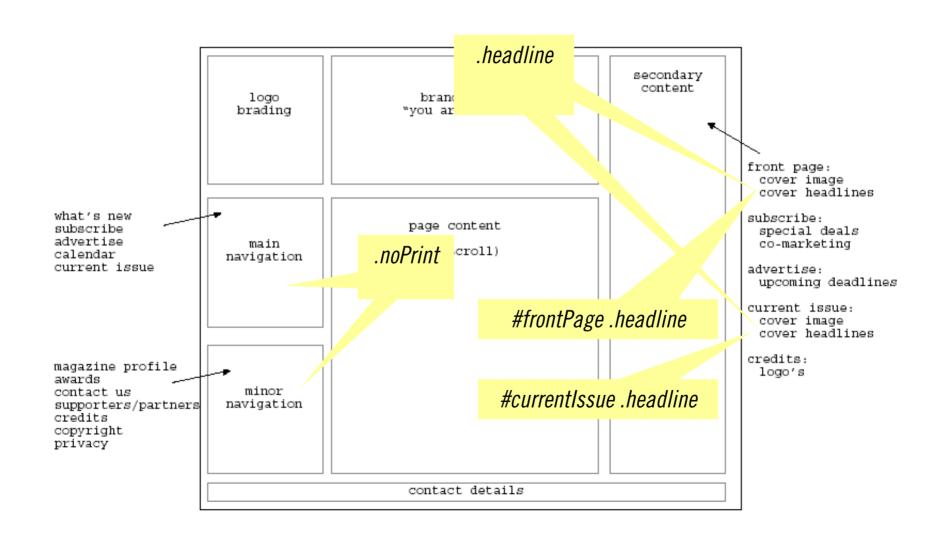


#### New additions -> Hierarchies

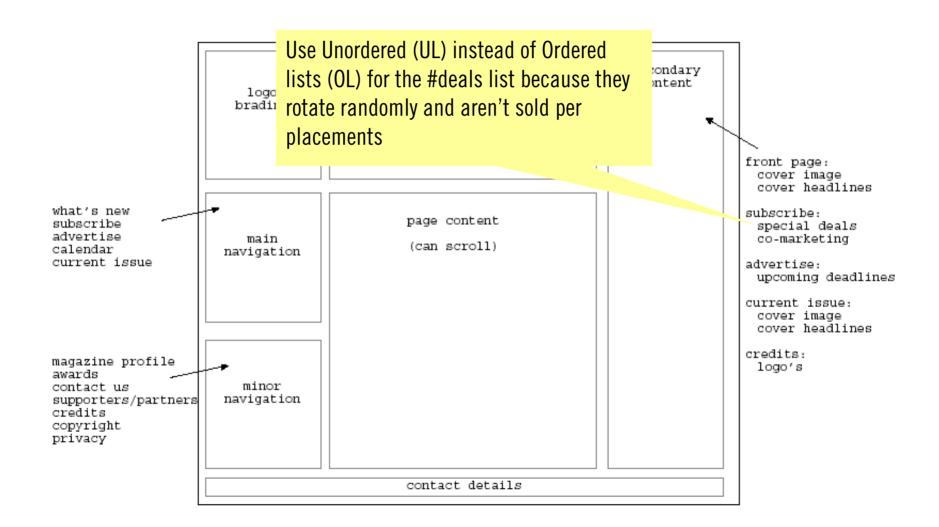
- 1. Branding (#branding)
  - A. Logo (#logo)
  - B. "You are here" (#place)
- 2. Main Navigation (#mainNav)
  - A. Minor Navigation (#subNav)
- 3. Primary Content (#content)
  - A. Secondary Content (#sub content



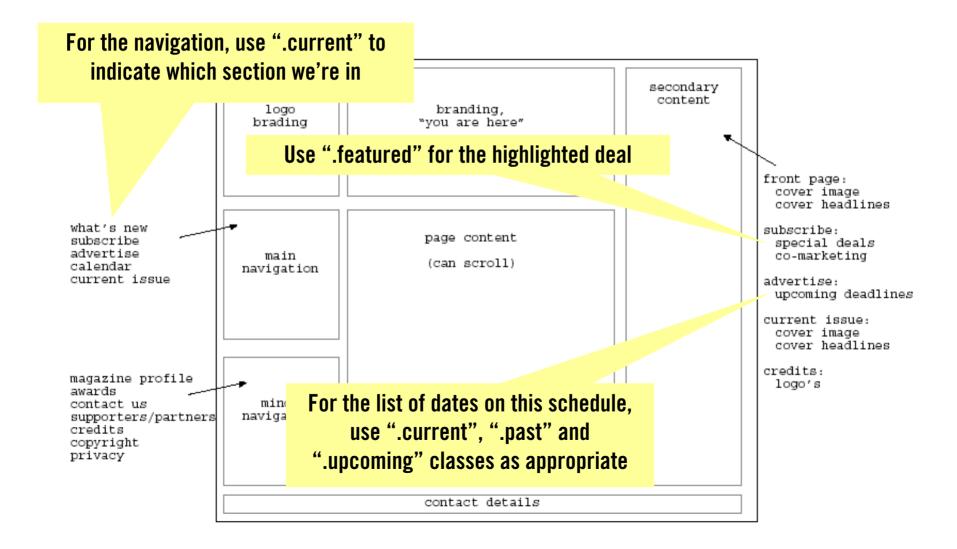
#### New additions → Similarities & Relationships



# New additions → Explicit Markup



#### New additions -> Granted Semantics



#### Not scary, it's simple

Basic HTML representing basic IA work identifying priority, classification and meaning.

#### A New Process

Can these advances enable an improved design and development process?

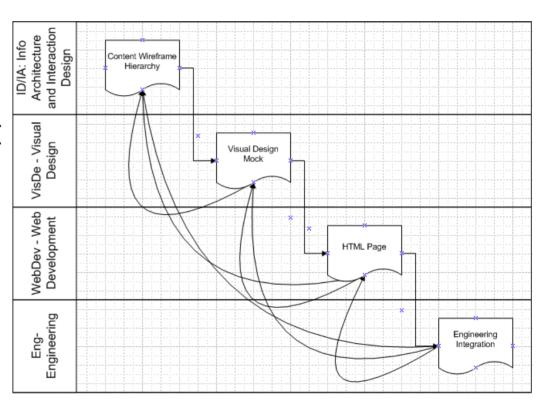
#### Lost in Translation...

#### What is the future of the web?

網の未来は何であるか → Is future of the net what? 未来是网什么? → What future will be net? 그물은 무슨 미래 것인가? → The net future will connect? Le futur net se reliera? → The future Net will be connected? Das zukünftige Netz angeschlossen? → The future net is attached? La rete futura è fissata? → The future net is fixed?

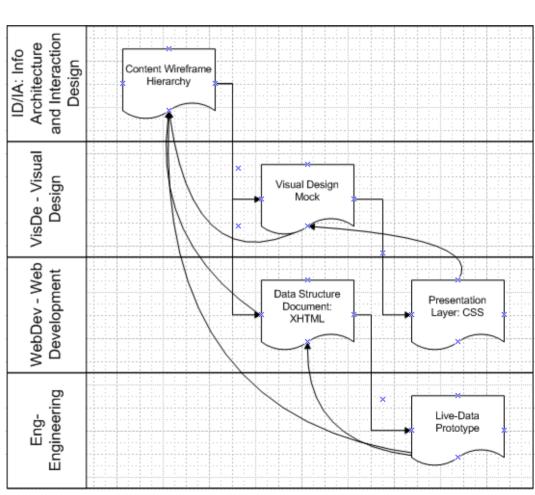
#### Waterfall Process

- Silo'd teams
- 4 vertical phases, most of any process
- Costly feedback loops and sluggish iterations
- Sluggish iterations
- He said—she said



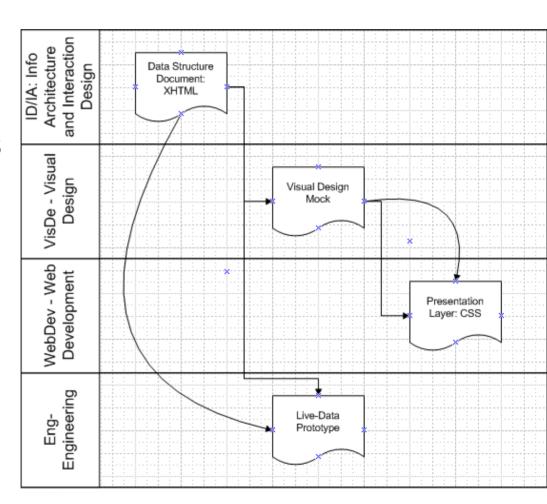
#### **Better Process**

- More efficient (only 3 vertical phases)
- Seperation of Content and Presentation
- Allows direct communication and appropriatly concurrent work.
- Short and appropriate feedback loops



#### Ideal Process?

- Most efficient: 3 vertical phases; only 4 actual stages
- Cleanest feedback loops
- Clearest communication with least waste
- Keep the end in mind when you begin
- Documents what's real
- Always current, always used



# Conclusion

#### Conclusion

- Technical hurdles have been removed, meaning can thrive.
- Due to advances in web development technologies we can modernize the practice of information architecture.
- These advances enable an improved process.
- This is our Web Vision.

#### Thanks!

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