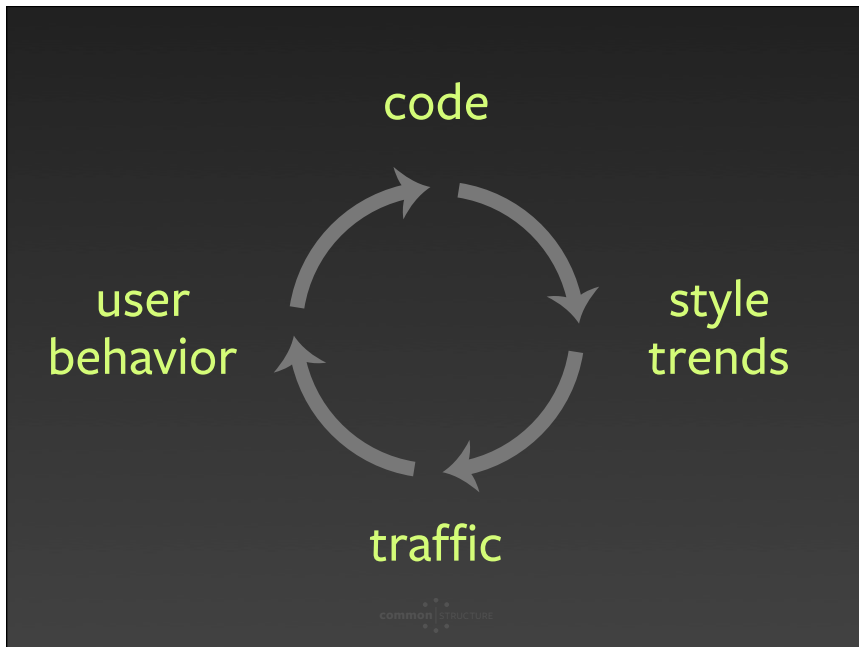




1

every time we create a new site or application (or redesign)  
design new systems / generate new code / use different naming  
schemes  
after designing/dev sites for 12+ years = recognition of repetition  
DEJA VU



2

we notice repetition in code, trends, traffic, and users' behavior.



3

What IS this about?

Over the next hour, going to stand up here on stage in front of you and attempt to figure that out.

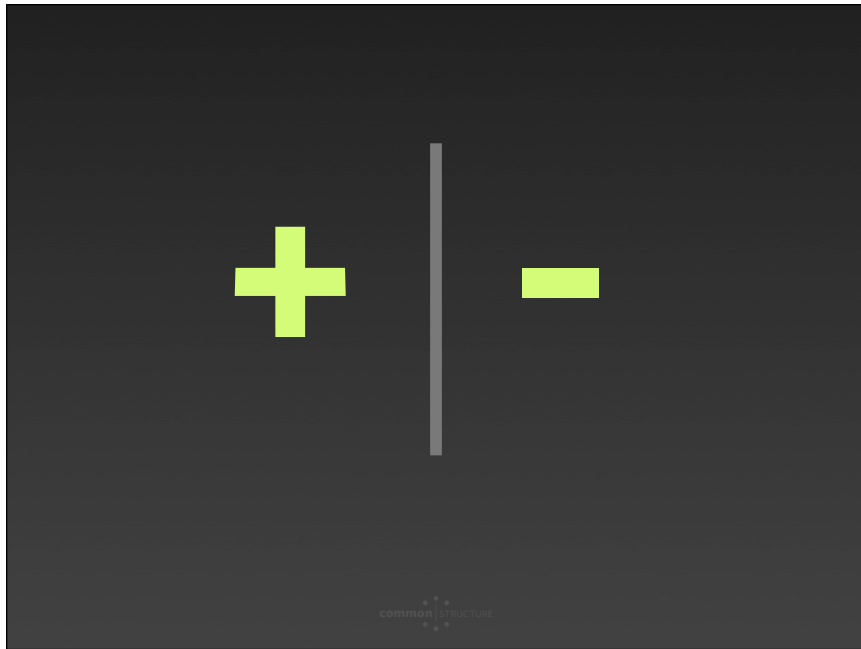


4

a distillation of best practices, potentially shared among millions of sites

something that's simple... easy to adopt...

something that's flexibly applicable  
freely add to — or remove from —  
the structure as appropriate

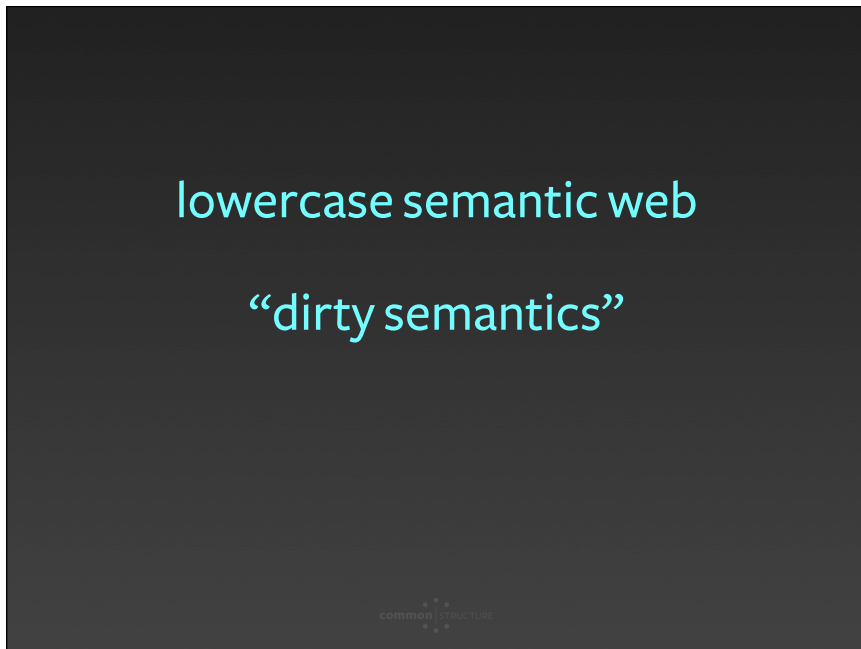


5

utilize existing standards: embrace the lowercase web [CLICK]  
address the issue of dirty semantics (Tom Coates) --  
mark things up however & as fast as you can  
optional = voluntarily adopted | cooperation NOT control  
collaborative and decentralized: doc model for global adds and  
mods

lowercase semantic web

“dirty semantics”



6

common structure **IS NOT**

a single **prescription** template

a **limit** on creativity or flexibility

going to **hijack** of anyone's job

another **standard** to validate against



7

**ASK** the questions

**SEEK** the answers

**DOCUMENT** those answers



8

# HOW

## did this come about?

common | structure

9

Much of this came about after some research two years ago on common naming schemes by Andy Clarke -- specifically -- he was trying to find a way to more consistently apply user style sheets.

## research by Andy Clarke

paraphrased:

### AS A USER

I'd like an easy way to customise pages I visit.

### AS A BUSINESS PERSON

I'd like to establish conventions which make my development time more efficient

[http://www.stuffandnonsense.co.uk/archives/whats\\_in\\_a\\_name.html](http://www.stuffandnonsense.co.uk/archives/whats_in_a_name.html)

common | structure

10

# May 2004

URL	Container	Header	Main-nav	Left	Right	Content	Footer
37 Signals	Frame	Masthead			TwoColClosedSidebar	TwoColClosedText	copyright
Cameron Adams		header			content-right	content-left	footer
Phil Barnes		header		ashtray	col	maincol	footer
Dan Benjamin	main	top				humidor	footer
Douglas Bowman		header			subcol	maincol	footer
Ryan Brill	container	header	nav		subnav	content	footer
Andy Budd	wrapper	banner	nav		links	content	footer
Alex Buga	container	header	navigate	coloana_unu		coloana_doi	footer
Dan Cederholm	wrap	logo	nav		sidebar	content	Footer
Andy Clarke	Container	Header	GlobalNav	SubNav		Content	Footer
Simon Collison	wrapper		navcontainer		sidebar	blog	footer
Justin Goodlett	container	wrapper	masthead	sitenav	sidebar	copy	footer
Jon Hicks	wrapper				nav	content	footer
Didier Hilhorst		header	navwrapper		sidebar	content	footer
Molly F. Holzschlag						content	
Shawn Inman	container	header	navigation	secondary-content		primary-content	footer
Brian K	container	header	menu	sidebar	right	content	bottom
Todd Lambert	shell	intro	navcontainer			content	footer
Gordon Mackay	wrapper	flashbanner	logonav		contentright	contentleft	footer
Ethan Marcotte	going-to-hell	head	navigation		sidebar	content	footer
Drew Mclellan		banner	nav			content	footer
Seth Messer	wrapper	header	nav		righttrail	main	footer
Eric Meyer		sitemast			extra	content	copyright
Cameron Moll	page	pagetop	navbar		storysub	content	copyright
Dunstan Orchard		header		right	menu	left	footer
Tim Parkin	canvas	header		menu	sidepanel	content	footer
D. Keith Robinson	wrap	header	navcontainer		rightcol	maincol	footer
Erik Sagren	wrapper	header	topNav		menu	content	copyright
Jason Santa Maria		header			subcol	maincol	foot
Blake Scarborough	main	mast	nl		sideCol	mainCol	foot
Paul Scrivens		navigationBox			col2	blog	footer
Dave Shea	container	pageHeader	secl		linkList	mainContent	footer
Steve Smith	container	header	navcontainer		menu	content	footer
Greg Storey	box		navigation		nav	content	footer
Tanuk					right	main	roll
Jeffrey Veen					SecondaryContent	PrimaryContent	
Josh Williams		Navigation			header	emarks	
Simon Willison	wrapper	header	globalnav		sidebar	maincontent	footer
Jeffrey Zeldman				leftcontent			
Ahmed Zulkamal	main	header				rightcontent	

[http://www.stuffandnonsense.co.uk/archives/naming\\_conventions\\_table.html](http://www.stuffandnonsense.co.uk/archives/naming_conventions_table.html)

11

Research of my own: 2 years later.  
Has anything changed?  
Over 60 sites — then gave up. too time consuming

Site name	Outer	Header	Navigation	Inner	Group 1	Group 2	Group 3	Footer
1 37Signals	Container	Masthead	navbar	main	Content	Sidebar		Footer
2 A List Apart		masthead	navbar	main	content	secondary	sidebar	footer
3 Adactio		logo	navigation		content	extra		footer
4 Adaptive Path		header	nav	content	maincol	subcol		footer
5 Airbag Industries	box		navigation	content	airbag	longboard		footer
6 All in the head	content	banner	nav		posts	aside		legal
7 And all that Malarkey	container		nav-main	content	content-main	content-sub	col	siteinfo-legal
8 Andy Budd	wrapper	branding	nav		content	links		footer
9 Asterisk	contenti				col1i	col2i		footer2
10 Backup Brain					content	navBar		copyright
11 Blue Flavor	wrap	header	<ul>	content	cbody	sidebar		footer
12 Cameron Moll	page	home	navbar	story	storymain	storysub		copyright
13 Clagnut		title	nav	home	blog	features	bookmarks	footer
14 Collylogic	wrapper	header		content	blog	sidebar	rightbar	footer
15 Daring Fireball	Box	Banner			Main	Sidebar		Footer
16 Digital Web		masthead	globalNav		content	sidebar		footer
17 Gotomedia	container	pageHeader	nav	content	columnOne	columnTwo		footer
18 Hard News	wrap	<h1>	nav		content	left	right	footer
19 Hesketh.com	s800x600	header	navPrimary	content	marketingCop	highlights	news	footer
20 Hicksdesign	wrapper		nav	content	maincol	sidebar	love	footer
21 Hivelogic	wrap	header		main-body	content	sidebar		footer
22 Inside Firefox	container	banner	content-		center	right		copyright
23 Intergen News	outer	topbanner	mainnavigatio		content	subnavigation	highlight	footer
24 Jason Santa Maria		header	nav	content	maincol	subcol		copyright

12

Some common names, but many were unique

Site name	Outer	Header	Navigation	Inner	Group 1	Group 2	Group 3	Footer
1 37Signals	Container	Masthead	navbar	main	content	sidebar		footer
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6 All in the head	content	banner	nav		posts	aside		legal
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9 Asterisk	content				col1	col2		footer2
10 Backup Brain					content	navBar		copyright
11 Blue Flavor	wrap	header	<ul>	content	cbody	sidebar		footer
12 Cameron Moll	page	home	navbar	story	storymain	storysub		copyright
13 Clagnut		title	nav	home	blog	features	bookmarks	footer
14 Collylogic	wrapper	header		content	blog	sidebar	rightbar	footer
15 Daring Fireball	Box	Banner			Main	Sidebar		Footer
16 Digital Web		masthead	globalNav		content	sidebar		footer
17 Gotomedia	container	pageHeader	nav	content	columnOne	columnTwo		footer
18 Hard News	wrap	<h1>	nav		content	left	right	footer
19 Hesketh.com	s800x600	header	navPrimary	content	marketingCop	highlights	news	footer
20 Hicksdesign	wrapper		nav	content	maincol	sidebox	love	footer
21 Hivelogic	wrap	header		main-body	content	sidebar		footer
22 Inside Firefox	container	banner	content-		center	right		copyright
23 Intergen News	outer	topbanner	mainnavigatio		content	subnavigation	highlight	footer
24 Jason Santa Maria		header	nav	content	maincol	subcol		copyright

13

Exact recurrances

Site name	Outer	Header	Navigation	Inner	Group 1	Group 2	Group 3	Footer
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18 Hard News	wrap	<h1>	nav		content	left	right	footer
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20 Hicksdesign	wrapper		nav	content	maincol	sidebox	love	footer
21 Hivelogic	wrap	header		main-body	content	sidebar		footer
22 Inside Firefox	container	banner	content-		center	right		copyright
23 Intergen News	outer	topbanner	mainnavigatio		content	subnavigation	highlight	footer
24 Jason Santa Maria		header	nav	content	maincol	subcol		copyright

14

Related names: (wrap and wrapper, nav and navigation).  
 Still not as much consensus as I wanted to see, except for “footer”.

Site name	Outer	Header	Navigation	Inner	Group 1	Group 2	Group 3	Footer
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8 Andy Budd	wrapper	branding	nav		content	links		footer
9 Asterisk	content1				col11	col21		footer2
10 Backup Brain					content	navBar		copyright
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22 Inside Firefox	container	banner	content-		center	right		copyright
23 Intergen News	outer	topbanner	mainnavigatio		content	subnavigation	highlight	footer
24 Jason Santa Maria		header	nav	content	maincol	subcol		copyright

15

## John Allsopp's data

script -> data from ~1300 SITES

5000 unique class/ID values

none > 100 x

16

# design pattern

a problem which occurs over and over again...  
and then describes the core of the solution  
to that problem, in such a way that you can  
use this solution a million times over,  
**without ever doing it the same way twice**



Christopher Alexander, Sara Ishikawa, Murray Silverstein  
*A Pattern Language*, 1977

common | structure

17

One thing that was missing in all this research: concept of design patterns  
... quote... \*without ever doing it the same way twice\*



Creepy Crawly



This is Cereal



Mediterranean



Bonsai Sky



Miracle Cure



Release One



15 Petals



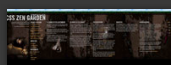
C-Note



Radio Zen



prêt-à-porter



What Lies Beneath

common | structure

18

If someone asks “But won’t having ANY kind of common structure limit creativity?” I just point them to this little ol’ site called the CSS Zen Garden. Talk about locked down structure?!

## design pattern

a problem which occurs over and over again...  
and then describes the **core of the solution**  
to that problem, in such a way that you can  
use this solution a million times over,  
**without ever doing it the same way twice**



Christopher Alexander, Sara Ishikawa, Murray Silverstein  
*A Pattern Language*, 1977

common | structures

\*the core of the solution\*  
this is not a one-size-fits-all solution  
it's a strategy for solving a problem  
benefit of looking at patterns is familiarity / recognition / common  
vocabulary

19

## site patterns

### WHAT THEY ARE

blog, wiki, academic, store, app, forum, gallery,  
brochure-ware, conference, government, ...

### WHAT THEY'RE FOR

political, documentation, distribution,  
promotion, ...

common | structures

multiple levels of patterns,  
for example we can identify site-level patterns

20

page-level patterns

## page patterns

contact, news, map, results, product,  
category, help, ...



21

getting more atomic, we get to module patterns  
combinations of these might be unique to specific page patterns

## module patterns

### **BLOG PAGE**

profile, entries, archive list, interesting links,  
blogrolls (XFN), photos/galleries, music, ...

### **CONTACT PAGE**

form, address (hcard), map, departments,  
people & titles (hcard), ...

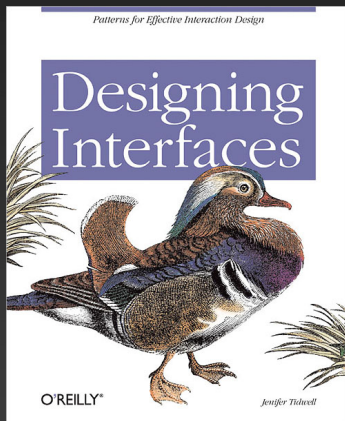


22

## interaction patterns

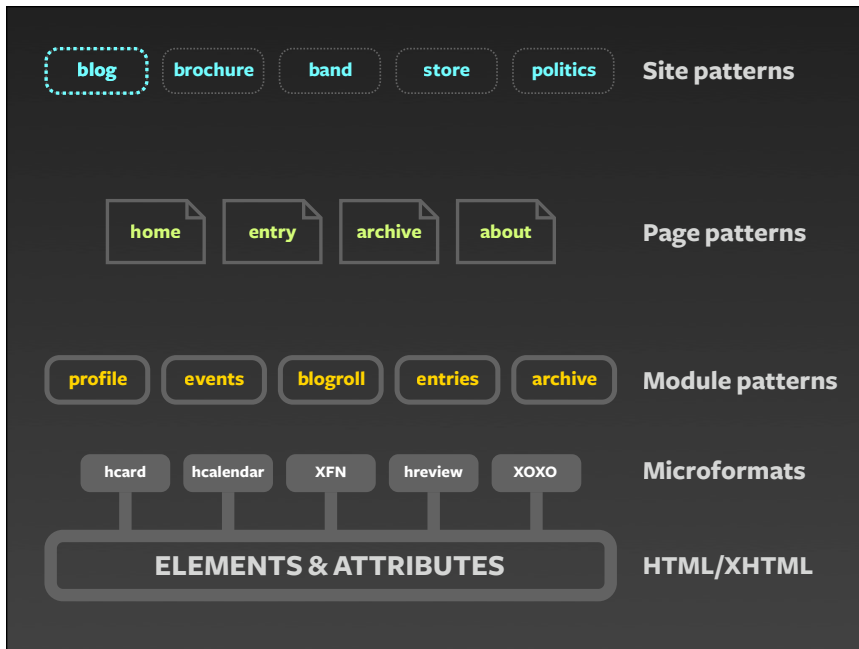
drag&drop, expand/collapse, highlight, inline edit, column sorting, add new item, delete item, tagging, rating, progress meter

Gem by O'Reilly, published end of last year  
fantastic introduction to interface patterns



In essence, patterns are structural and behavioral features that improve the “habitability” of something [...] they make things easier to understand or more beautiful; they make tools more useful and usable.

—Jenifer Tidwell



25

We start out with site-level patterns, come down the tree to page-level, using a blog for an easy example's sake, then module-level -- we can also look at this from the bottom up, starting with the base of HTML elements/attributes. Microformats are basically a common structure connection between HTML and specific module-like patterns.

The screenshot shows the 'microformats' website with a navigation bar (blog, wiki, code, discuss, about) and a list of articles. A large, semi-transparent text box is overlaid in the center, containing the following text:

Designed for humans first and machines second, microformats are a set of simple, open data formats built upon existing and widely adopted standards.

The background shows a list of articles including 'Master Foot's Taxation Theory of Microformats' and 'Bill Gates at Mix06 - "We need microformats"'. A sidebar on the right lists various microformat types like 'People and Organizations', 'Calendars and Events', and 'Social Networks'.

26

# Microformats

**hcard** = people/orgs

**hcalendar** = calendars/events

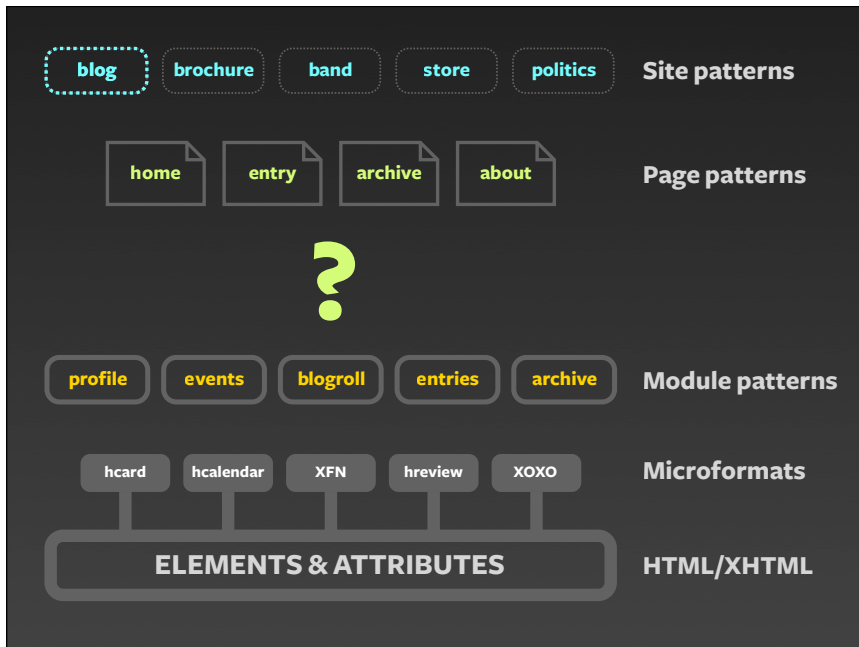
**XOXO** = lists/outlines

—Microformats.org



27

But technically, there's a jump between module and page patterns as far as pragmatic structure goes. We also may need a way to group modules on the page, and assign them some kind of significance relative to each other.



28

## proposed: 2 types of grouping

### IDENTIFICATION

specific named content (navigation, search, ...)

### CLASSIFICATION

content importance/relevance

meta-structure for page architecture

the meta-structure completes the missing link between page and module patterns.

These groupings hint at possible divisions, and may or may not be used to apply styles or scripts to these groupings.

# WHO

## benefits from this?

## designers, developers, engineers

greater consistency  
adoption of best practices  
decentralized ownership  
interoperable  
save time



31

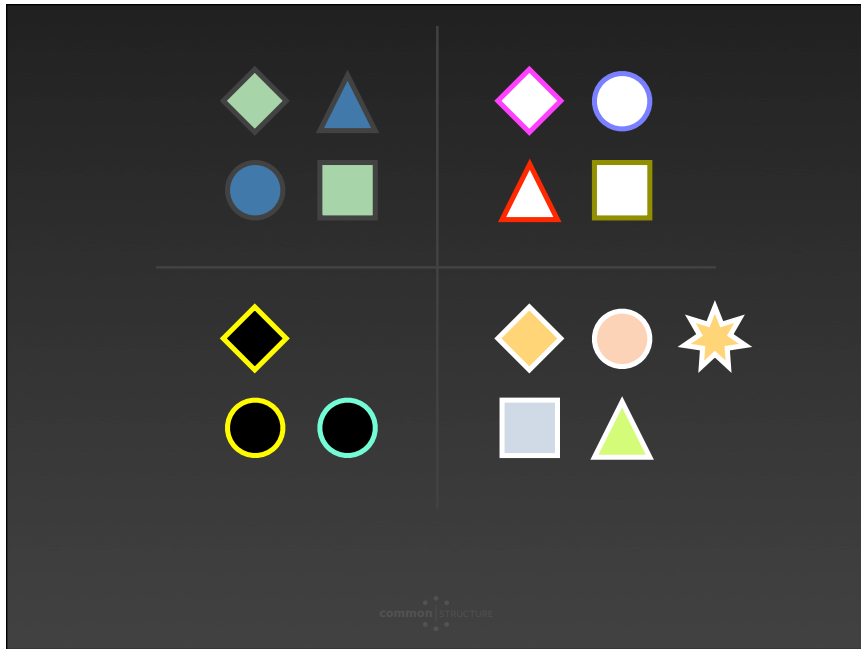
consistency, best practices, decentralized  
Interoperable: work is applicable broadly

If we can consistently identify certain structural elements on the page...



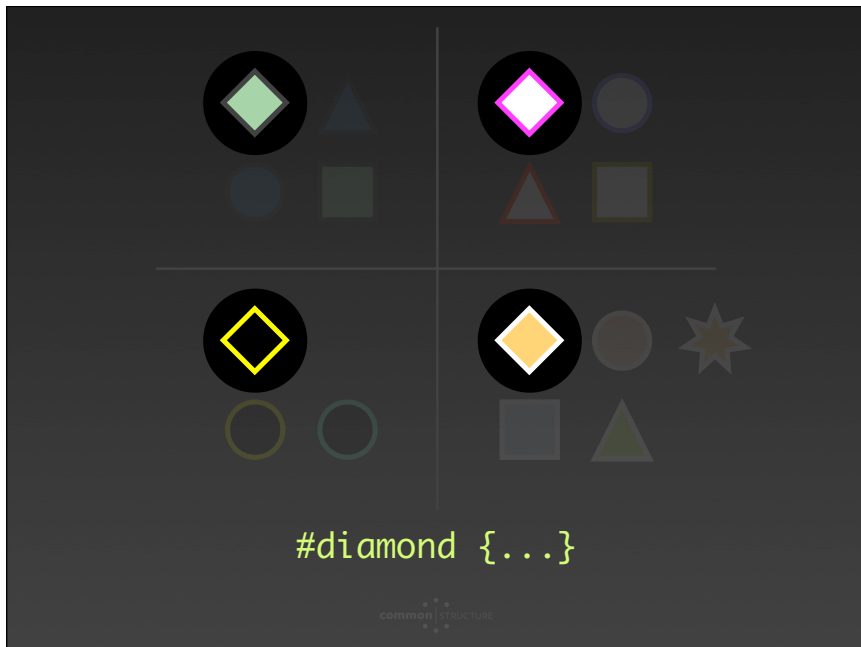
32

And allow use of these elements in any combination and in any style... can even remove from or add to...



33

Gain the ability to consistently target certain elements either through style sheets...



34

Or by scripts  
eg. do something with all the elements inside the triangle container

```
document.getElementById('triangle')
```

common | structure

35

## software vendors

reliable targets  
offer powerful customization  
auto-generation/detection

36

## publishers

full library of options  
content indexed more accurately  
aggregation of data in new ways



37

## users

consistency in code is hidden  
easily skinnable apps and sites  
greater control  
benefit from applied best practices



38

# WHO is doing related work?

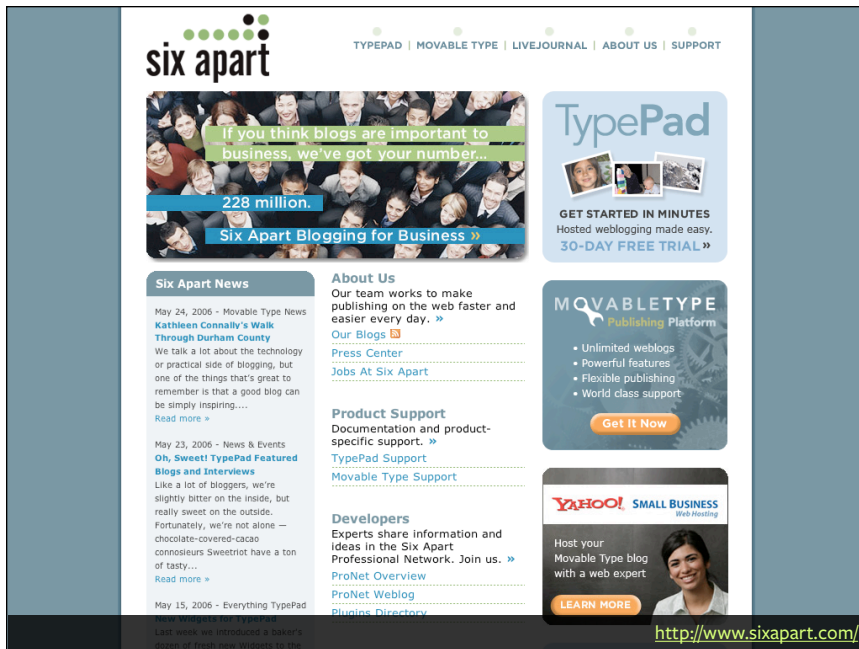
common structure

39

The screenshot shows the Yahoo! Developer Network Design Pattern Library. The page has a navigation sidebar on the left with categories like 'NAVIGATE', 'EXPLORE DATA', 'ORGANIZE DATA', 'GIVE FEEDBACK', 'PERFORM ACTION', and 'CUSTOMIZE'. The main content area includes a 'Welcome' message, a 'What's a Pattern?' section, and a 'Recent Patterns' section. The 'Recent Patterns' section features six pattern cards, each with a screenshot of a UI element and a brief description of the pattern's purpose. The patterns listed are: Animate Transition, Collapse Transition, Dim Transition, Expand Transition, Fade In Transition, and Self Healing Transition. At the bottom of the page, there is a URL: <http://developer.yahoo.com/ypatterns/>.

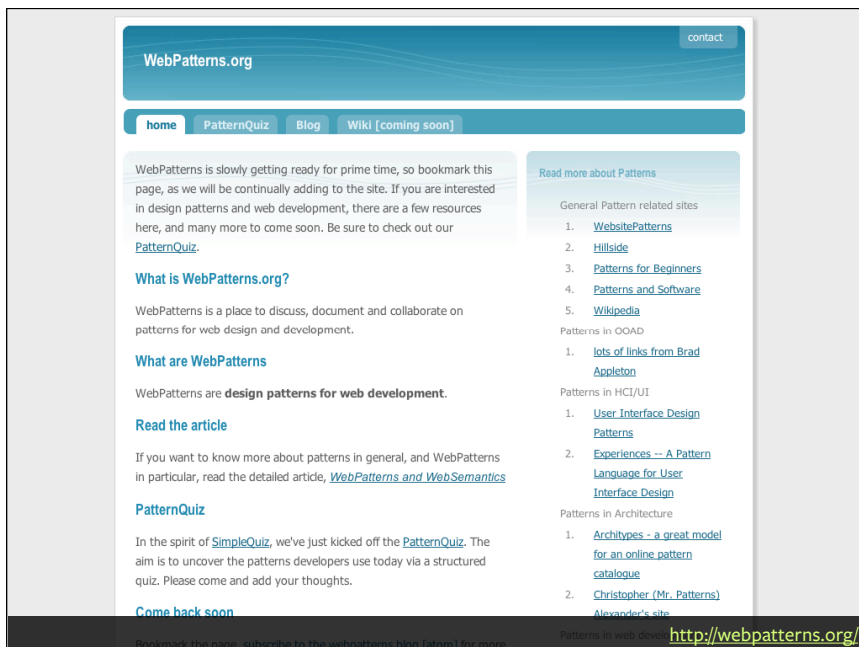
40

Yahoo is doing some great work documenting the patterns they're encountering and using -- they seem mostly to be focused on interaction patterns though.



41

Six Apart recently standardized on their physical HTML structure across all their publishing products (MT, TypePad, LiveJournal) strange naming choices though, which change, based on layout and order.



42

John Allsopp is leading one of the efforts to gather a collection of patterns at webpatterns.org. Through quizzes and collaborative input, he's attempting to identify and define the major patterns at different levels.

FUNCTIONING FORUM

Context. Consistency. Clarity. Control.

ABOUT ARCHIVES

"It's really hard to design products by focus groups. A lot of times, people don't know what they want until you show it to them."  
—Steve Jobs, 1998

• More Quotes

Resources

- Site Seeing: the Book
- Web Application Designs
- Articles & Papers
- Interface Design Education

DesignVision PDF  
A conversation about the role of design-driven leadership

Waverly Cemetery, Australia

Subscribe via RSS

IXDA

Design Patterns: Introduction  
05.22.2006 by LukeW

In the Spring of 2006, a group of designers intimately familiar with the organization and development of design pattern resources got together to discuss the current and future role of design patterns in the real world. We talked about defining and documenting patterns, the context required to communicate how patterns should be applied, what it takes to develop a design language, and how disparate lists of patterns could converge. It's our hope this conversation continues.

Design Patterns  
A conversation about defining and sharing user interface design languages:

James Reffell  
UI Design Manager, eBay Inc.  
Curator, eBay Pattern Engine

Bill Scott  
Ajax Evangelist, Yahoo! Inc.  
Curator, Yahoo! Design Pattern Library

Jenifer Tidwell  
Interaction designer/software developer, The MathWorks  
Author, Designing Interfaces  
Curator, UI Patterns and Techniques

Senior Interaction Designer, Satama Amsterdam <http://www.lukew.com/ff/entry.asp?347>

43

Luke Wroblewski, a designer at Yahoo is hosting a conversation between several pattern experts, including the previously mentioned Tidwell.

WHERE  
do we begin?

common structures

44

What kind of principles might we follow here to ensure we end up with something reasonable?

## Principles

1. Start simple.
2. Identify common patterns.
3. Reuse popular taxonomy.
4. Enable global participation.



45

1. anyone should be able to understand/implement/adopt
2. implementations that fit specific patterns.
3. when appropriate, use language people are already comfortable with.
4. decentralized, no single source ownership, means of documenting other patterns

# WHY

go through the trouble?



46

the leap isn't that big

site-wide structure is the norm

RSS, Atom, SVG, ...

common structure

already creating site-wide structures  
we're already publishing to consistent formats: RSS, Atom, SVG...

47



Sharing from site to site is increasing. Obviously there are certain XML formats we're using most of the time to do this -- but why can't we make better use of the HTML that's already there.

48

many → many

common structure

49

the publishing model has completely changed over the past few years. Pages on the Web are no longer controlled by a few large media companies. We can all publish content in one way or another, and we publish a LOT OF IT!

A photograph of a large iceberg floating in the ocean. The iceberg is white and blue, with a jagged top. The water is dark blue, and the sky is light blue with some clouds. The text is overlaid on the bottom half of the image.

Current search engine max  
~8 billion pages

50

apparently the model is many many many to many. But this is just on the surface...



51

The Deep Web is estimated to be around 600 billion pages. Everything on the surface is what search engines can see and index -- everything beneath is what is either behind firewalls, passwords, or pages being prevented from indexing.

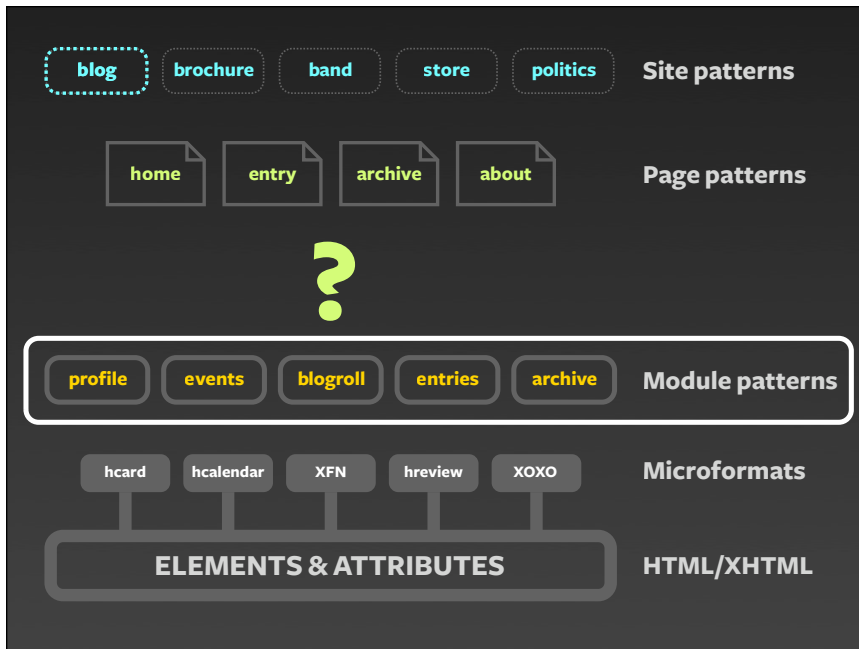
1995	2005 – Deep Web
11 million pages	600 billion + pages
rate?	2-20 exabytes/year

gigabyte » terabyte » petabyte » exabyte

2 exabytes = 2,000,000,000 gigabytes

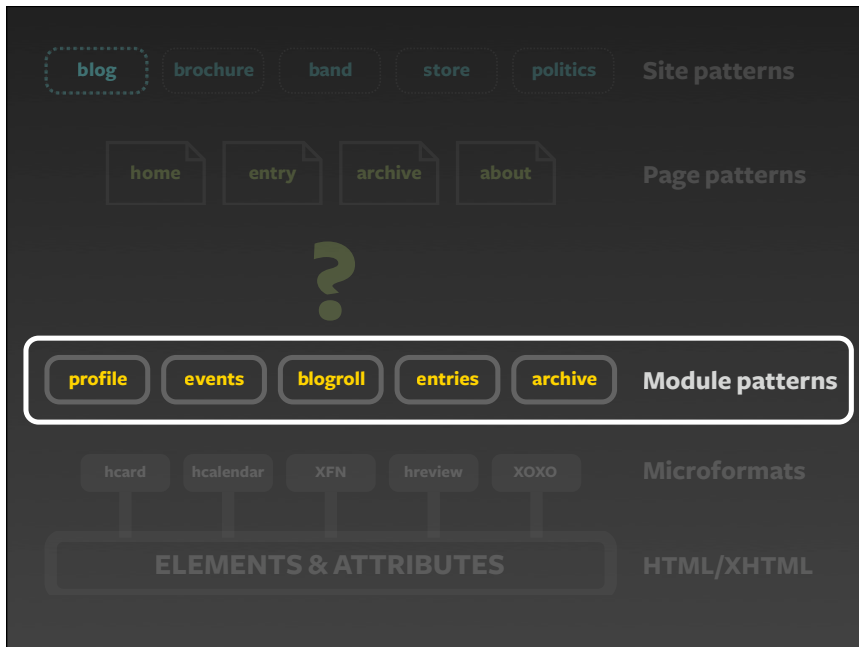
52

Just taking a look at the dramatic increase of pages being dumped on the Web now compared with over 10 years ago in 1995...



53

So, returning to this little diagram, we have all these patterns in place. But technically, there's a big jump between module and page patterns as far as pragmatic structure goes. We also may need a way to group modules on the page, and assign them some kind of significance relative to each other.



54

So, returning to this little diagram, we have all these patterns in place. But technically, there's a big jump between module and page patterns as far as pragmatic structure goes. We also may need a way to group modules on the page, and assign them some kind of significance relative to each other.



55

So let's say we start with the module patterns from that diagram, and turn the names given to them into IDs. Once we start getting more than 2 or 3 of these per page, we can already tell it will be difficult to group some of them without another level of meta structure for the page.



56

So we possibly look at grouping some of these modules together -- what we name these groupings? undetermined for now -- but that's one of the primary questions of common structure.

What if we want more than one level of grouping to indicate several levels of importance?



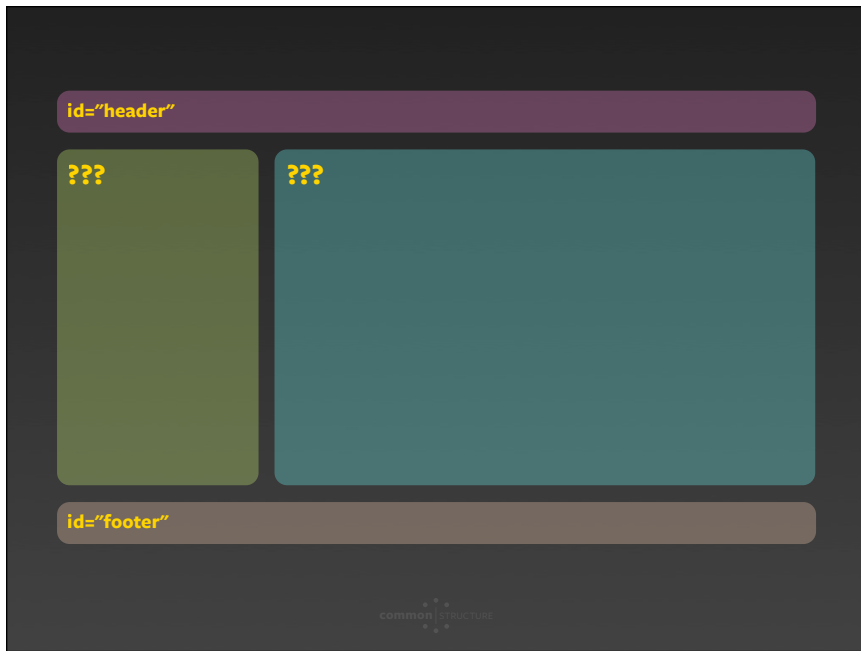
57

Zoom back a little bit now to view this in context of the common header and footer elements, and possibly an über group named something like "content". If we can get to this level of naming, and use a structure something like this, we get into the the ability to apply variations with CSS (to any site) — I can get excited about this...



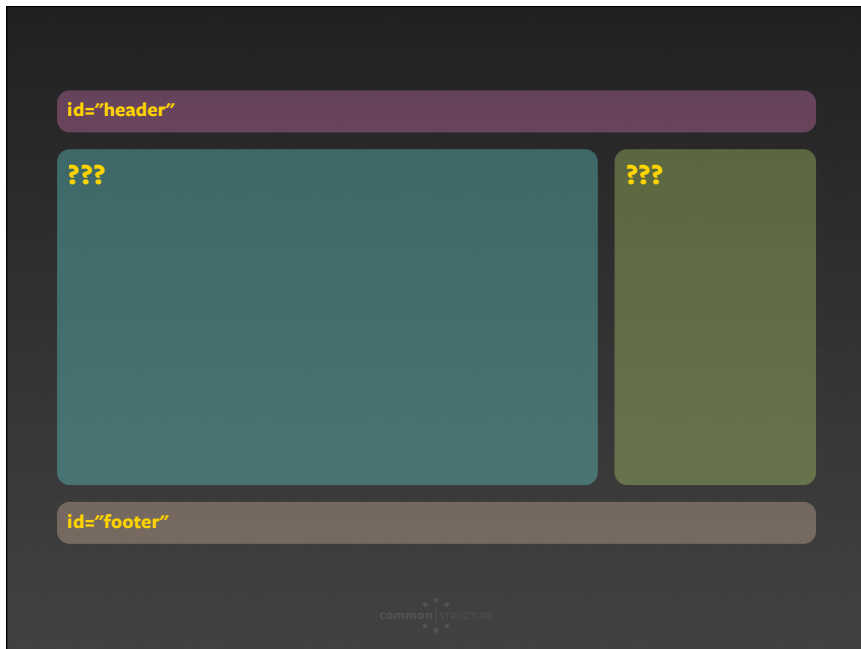
58

two columns



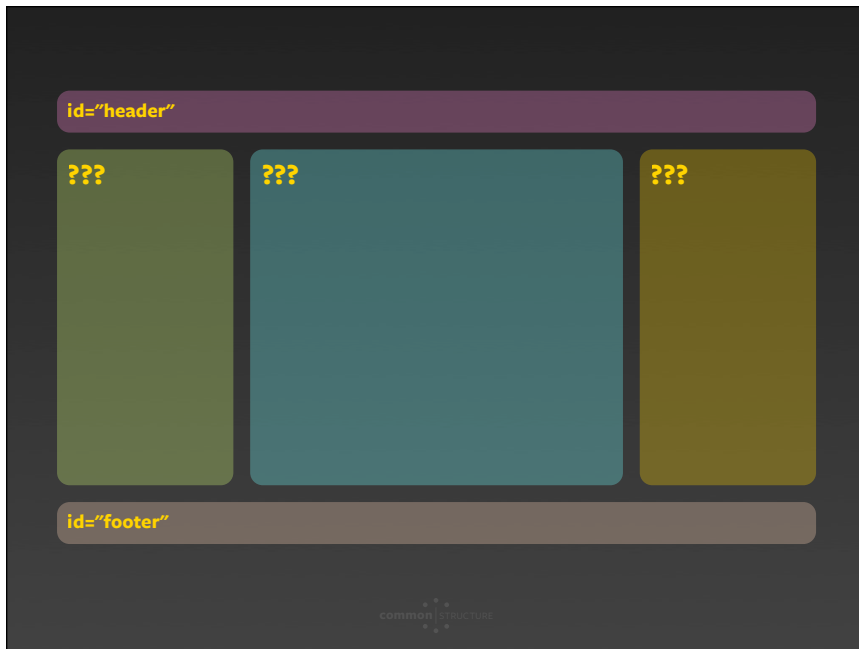
59

reversed



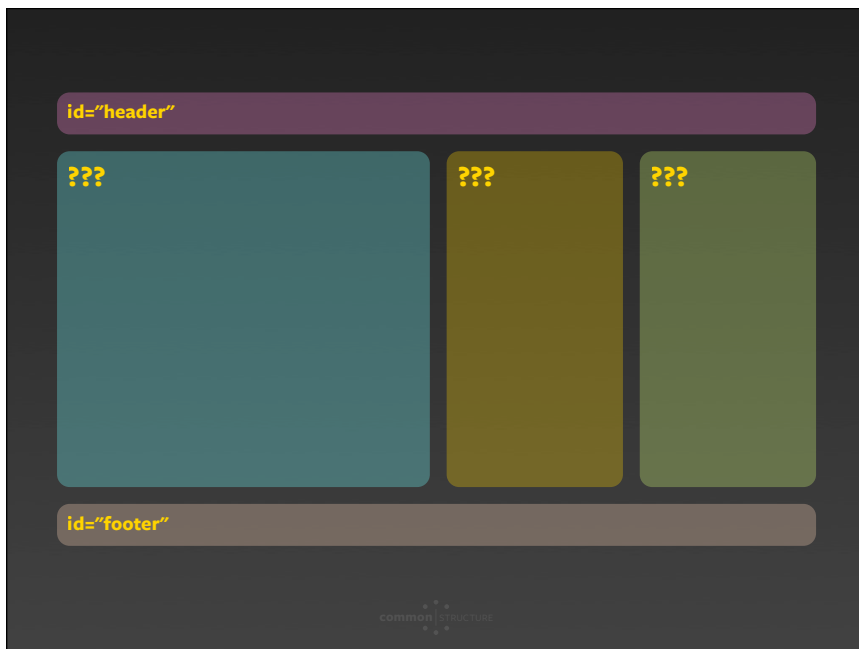
60

three columns



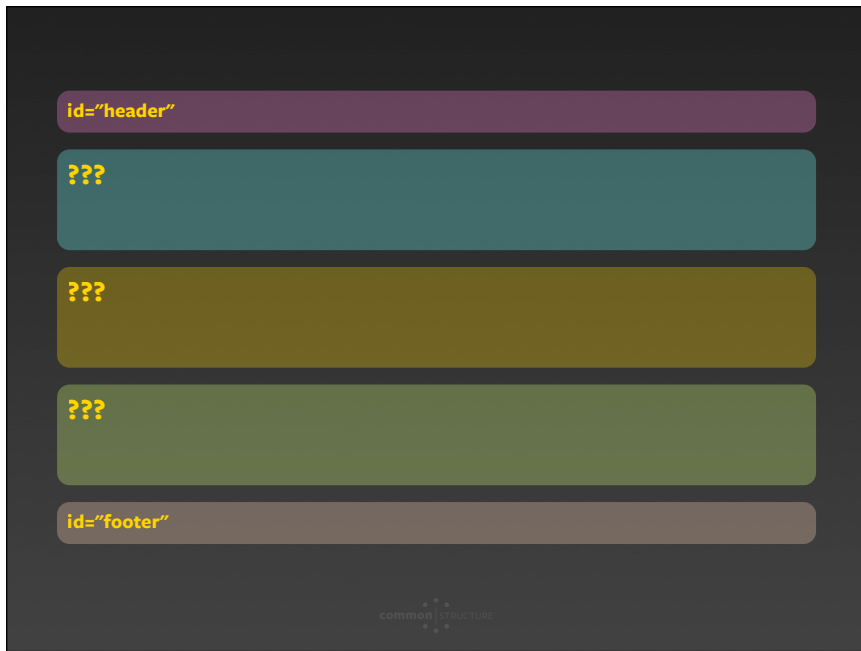
61

swap order of three columns



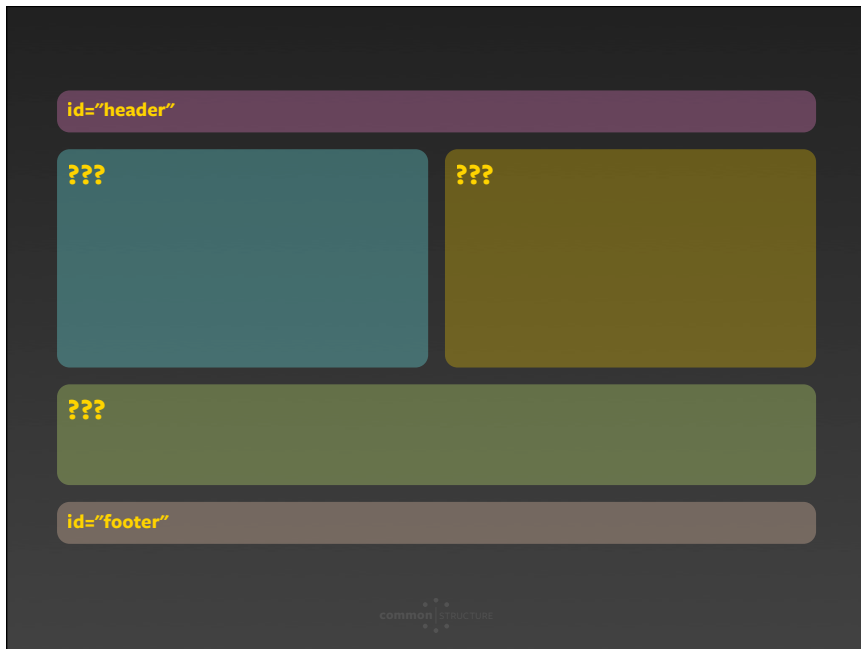
62

one column with all content



63

split approach



64

one column with only most important content



65

## IMAGINE IF...

you never had to worry about CSS layout ever again — that your site could be compatible with millions of style sheets and scripts.

66

## OR IMAGINE IF...

any style sheet or script you wrote  
could be licensed to and reused by  
millions of other people.



67

## ALSO IMAGINE IF...

user style sheets actually worked  
and could be configured  
automatically, without users  
knowing one line of CSS.



68

if they could be applied consistently  
enough  
browser makers could predictably  
implement a range of styles

# THANKS!



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