Future of web design, May 15th 2012

The Brewery, London

@fowd, #fowd

By Pui-Ling Lau, @linglau64, www.linglau.com

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Keynote speaker: Notes on Design

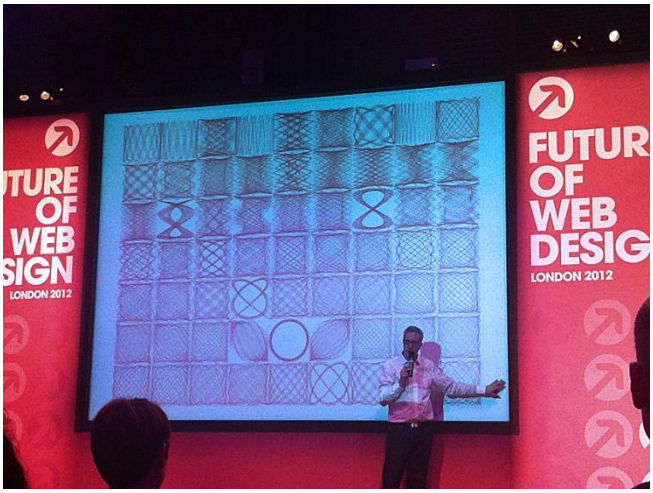
Brendan dawes @brendandawes

"It should remind you of something you've never seen before"
See beauty in mundane objects to create beautiful work. Paperclips!! Sexy paperclips!

"Life's too short to own an ugly pencil"
"Obsess about the tools you use"
Beautiful tools to make beautiful work.

Iteration is a process to discover new things

Importance of constantly making to achieve the one beautiful thing, see picture of oscillations. Every oscillation is a 0.1 programmed difference in the maths. Even 0.1 of a difference can be the difference between an okay design and a beautiful design. This is a constant process and carries on indefinitely.



By **Pui-Ling Lau**, 15th May 2012, Future of Web Design Conference @ The Brewery, London

Comma, semicolon, full stop - well designed objects are all imbued with good use of punctuation.

There is a rhythm to everything. Punctuation in terms of design

Subtract to add

Taken things away to add

We live in a world which constantly has to be updated.
iPhone app: *The accidental news explorer* app, you end up (navigating) being somewhere you didn't know you were going to be.

"In order to find something you have to look for something else"
You love your iPhone more than your desktop, it's a more intimate experience.

When you add more, you provide another option, do you actually need that? Example, felt compelled to do an update on an app, updated and only 2% used that feature.

Make. Make better

I make for me

Data by itself is not enough data needs poetry

Need to make people love this stuff.
One button that does one thing, however with constraints. (For example, the wooden weather machine, takes the weather online and turns the wheel to the correct weather symbol" OR you can just look outside!)

Be naïve

Too much knowledge can be a dangerous thing. If someone tells you something is impossible, be naïve and do it. Mechanical engineers would tell you it's impossible to…

Idea that you can buy anything from Amazon and then download it for it to appear in front of you, that's where it is heading.

Utilitarian modeling. Do it for you. Sometimes in life when you're making stuff, you make dildos..! See pic of winding headphones.

***"Own what it is that make you different"* – Aimee Mullin**
Bring to projects, you, rather than someone else. Celebrate that. You may be doing something that may be dull, but you bring yourself into that. It is an opportunity to be you.

Edit after: I think what struck me is the fact that you should obsess over your tools. Get stuck into the art of creativity and maybe go down to its roots and just create. The most important thing is to create for you. For yourself. Whatever you want.

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The UX of HTML5

Joe Leech @mrjoe

Specialty is in forms and user experience.

Classic user quote: "I want to punch this website in the face"

HTML5 is not so rigid anymore.
"A designer who doesn't understand how people behave is going to be no more successful than an architecture who doesn't understand physics."

A lot of error in the application of HTML5, still needs UX love.
"***Just because you can doesn't mean you should"***
With great power comes great responsibility. Really relevant to HTML5

Implementation of HTML5 in different browsers

The spinner (aka the range)
Accessibility in small buttons on browsers

Asterisks in forms
There are still people who don't get it and don't know what means!

Rather than asterisks, just add optional labels to the ones that are optional.
Tell them what they can choose to do rather than what they have to do.

Adapt to what your users want to type in.
Simple question of: What is your salary? Varied user responses from 34000 – 34,000 – 34,000.00 – £34,000 – 34000€ etc etc. The form doesn't tell you how to do it.

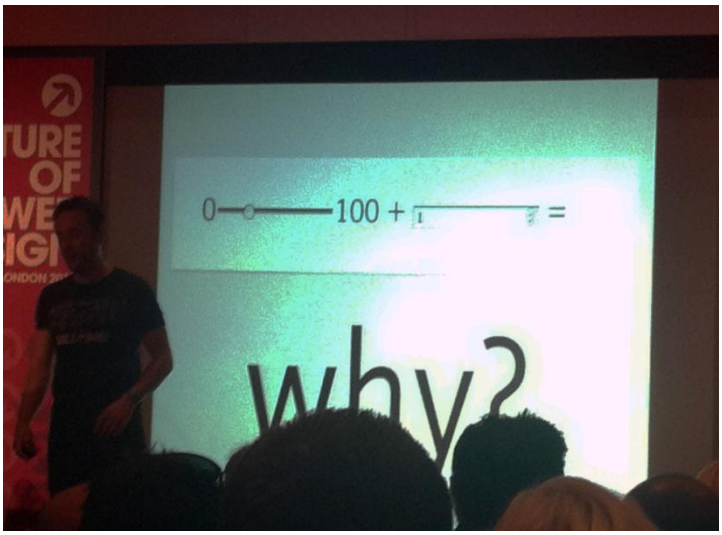
Use regular expressions – form validation – coming our way to HTML 5.

In Chrome, click, "please fill out this form" appears automatically and then disappears. However error messages disappear which is not good UX. It is the implementation that is a problem in HTML5. Change the error messages, be careful with HTML5 in forms. Default error messages in browsers are messy. No consistent form across all the browsers that you're working on. We currently have to build on top of HTML5 forms.

Sliders are for losers

Really cool salary slider but it took a woman ages just to slide to the correct number. OR you can just type it in!

jQuery date picker. The calendar days started on a Sunday instead of Monday and due to error in user experience of where they clicked, refunds at hotel went up by 20%. Lost a lot of money.



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Prefetching is a great idea

rel=”prefetch”
It will load something (previous page that you were on?) in browser.
In doing something fancy people will get confused about it. Careful with implementation

Drag and Drop

Problem in testing is that people didn’t know what to do regarding drag and drop

Fraudence – the design tells you what to do, i.e. a door push plate is push and a handle is pull
When nobody understands the fraudence – bad UX
Now iPad drag and drop is more familiar.

User: Why drag across the screen when you could click Add and it goes over automatically? [pause] !!!

Don’t do stupid shit

autoplay=”autoplay” !!!
autotune=”autotune” (not really, bad joke)
<small> - represents small print – be careful with this.

Edit after:

Holy Moly we’ve got a lot to learn.
Implementing HTML5 in forms is still a problem with UX.

UX Questions

Use HTML5 for form field online

In a complicated web form – don’t prefill the field without a label where you click out and it goes.

HTML5 not ready yet for forms. A lot of problems

Not many HTML5 forms out there right now.

By **Pui-Ling Lau**, 15th May 2012, Future of Web Design Conference @ The Brewery, London

jQuery let it rock your world

Matt Gifford @coldfumonkeh

Today is just another day

Today I'm going to create something amazing

We can express our passion through our creativity

Pioneers and inspiration

Things you want to build
It's down to inspirational people – we are all akin to rockstars..!
What we create should inspire.

AJAX – use JS to pull in remote data without sending user away

jQuery - Made JS easier to use without developers worrying too much about it.

Easy is good

Not perfect. But regardless of your skillset you can create interactive elements.
docs.jquery.com

Plugins

jQuery library – common elements like datepicker, tabs etc.

Tailor jQuery to fit look and feel.
ThemeRoller can customize the UI library.

Mobile theme roller
Don't make it look generic!! Make it your own.

PhoneGap
Series of API build native mobile applications written in HTML and CSS. With JS. To make your site fit a native device

XUI.js
Streamlined version of jQuery functionality

Common to think about DOM manipulation when thinking about JS

DOM manipulation

Class selectors – select items on page by using CSS names
Read Hard Boiled Web design. Try to reduce CSS styles.

Class selectors

$(".classname"}
Better Javascript is ${"div.className"}
So that it doesn't just search the entire document for that class name but instead it finds a class name under a div.

Don't make journey harder than it has to be. Don't hide content because of one carousel. Use jQuery responsibly

Think about building site without JS first.
${'HTML'}.addclass ()
Etc.

Make sure have latest version of jQuery. There are performance benefits. If not, then you can specify the version that you know works.

CACHE EVERYTHING

From this:

```
var     item = ${'#item');
        item.css('color', '#ffff00');
        item.html('monkeh lovin is good lovin');
        item.css('background-color', '#ffffff');
```

To this:

```
var     item = $('#item');

        item.css ('color','#ffff00')
            .html('monkeh lovin is good lovin')
            .css('background-color', '#ffffff');
```

Can write jQuery which increases performance. Save jQuery from reading everything over and again. To make jQuery readable. Good for team work.

Everything you add, adds weight to your pages. Use *YUI compressor* to compress scripts– make things smaller. Automative tools to create one script files.

Testing

Firefox – firebug
Opera – Dragonfly
Chrome developer tools
Microsoft Companion JS

Unit testing
QUnit
JSUnit
FireUnit
Server side JS platforms that need testing

Charles – web debugging proxy application

Beautiful Code – Style Guides

Idiomatic.js
jQuery Core style guide
Google Javascript style guide
Make code simple and understandable.

Cheating is ok

Use a cheatsheet of functions, variables etc

Edit after:
Never thought about caring about the code (i.e. making the code beautiful and compressed) of jQuery as it is a plugin written by somebody else. Must start learning how to maintain it. I guess I am still afraid of JS.

Web Typography

Jon Tan @jontangerine

Two concepts to typography

Impact

To impinge on. Grab attention

Immersion

Absorbing involvement. Have someone live in a space that we create, absorb a message that we are telling them and perform a task that we want them to perform

These are two very different cognitive things that are important in terms of typography.

How to set type and why it matters

"Method of human communication consisting of the use of words in a structured and conventional way"

Book: *What is reading for?* Robert Bringhurst

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"Words are neither things not pictures of things they are gestures and gestures whether spoken or written are what is absorbed best."

"You give people some simple abstract marks…and they supply the pictures themselves"

Book: *The Aesthetics of Reading* – Kevin Larson & Rosalind Picard

There are important differences between good or poor typography that has little effect on speed reading and comprehension.

Good typography induces a good mood

We want people to compete tasks on websites.

Screen and type (choosing fonts)
2560x1440
2048x1356
.
.
320x480
Vast difference of quality of display

Different rendering environments
Windows, OS X

Bell Centennial font made to be read in a fast way (yellow pages). Designed by Matthew Carter. History of fonts being created for the purpose and environment that they exist on. This is designed to be read on crappy paper.

Another example is *Siri font* is designed specifically for the screen to help adverse rendering environments.

Choosing type for utility

Test the smallest text first
Check they're licensed for websites
Language support

Which typeface performs the task for the environment that you want.

Legibiliity

Where we take quiet delight in the tiny bits

Book: *Detail in Typography* - Jost Hochuli
We read by skipping along lines in saccades with pauses or fixations that allow us to understand a group of letters before we move on again.

The type allows us to do this.
Sentinel font – test

agh!ill1 – test text for the way a font would look and render. Some fonts do not have a good different between 'il1I '

Not seeing a text and deciding whether it looks pretty but *whether people can read what it says easily*.

See pic of ligatures
Not all ligatures are helpful. Can interrupt the saccades as people jump through them.

Those subtle differences in typesetting that help people read. Induces a good mood.

Techniques in CSS

Kerning and ligatures
Text-rendering: optimizaLegibility;

Hyphenation
-webkit-hyphens: auto
-moz-hyphens: auto
hyphens: auto;

Prevent orphans
Easy peasy non breaking space:
Preventing single word from dropping down a line

Using CSS3 to access OpenType features
-moz-font-features-settings: "liga=1" …etc!

Putting spans to get a nice font on certain letters
E rik Clapham

@font-face .swash….

Readability

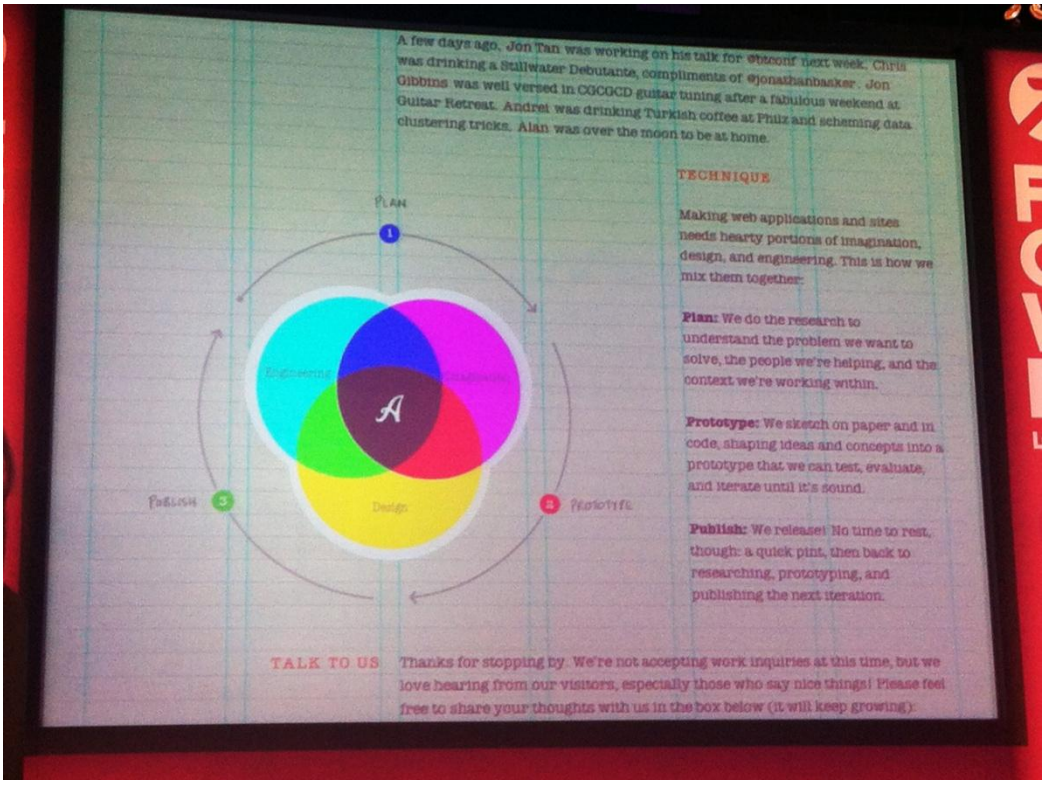
11pt = 16pt (approx)

Readability is concerned with the information is organized. Scan paths of eye-tracking research.
Scan paths roughly take the z pattern. Like a saccade in text with pauses and fixations etc it is the same with a website.

Multiple scan paths isn't designed for readability.
Think in terms of design: Think in terms of SCAN PATHS with saccades and fixations.

Z pattern served through texts as well as images.

Also use Grids, vertical rhythm and horizontal rhythms



Also hierarchy
Hue and lluminosity, style and size

One typeface
Two sizes
Two cases
Five colours

The Measure anything from 77 characters to…

Good example:
Font-size: 1em=16px;
Line-height: 1.5em=24px;
Measure: 77 characters

Snappy text +generous leading

Summary
Scan paths
Saccades
Fixations
Readability

There are no rules, just good decisions

It's emotional
All the signs to justify decisions comes down to emotions. And putting them into an emotional state.

Gesture

Colours and music we don't have words for it. And it is the same with type.

Although there is no absolute separation between language and emotion there will still be countless instances where you have a emotional response without verbal input or linguistic cognition

Encouraging an emotional reaction before people actually read the words.

Fonts are wayfinding apps for emotions.

Sense of place

Typography influences the subconscious so strongly that conditioning the people with type is not only possible but happens whether we want them to or not.

Type shapes our experience. It paints pictures in our memories long after we have left.

See kitchen sink studios site. *The type has a flavour.*

"Details in typefaces are not to be seen but felt" Erik Spiekerman

"Don't think. Feel." Bruce Lee

Smashing Mag Responsive Design case study, using HTML5 and CSS3

Vitaly Friedman, Editor in chief of Smashing Mag @smashingmag

It's not a one man show. Collaborative effort.

Why Redesign?

In 2011, our design didn't reflect the many conceptual changes we've made.

- Bloated code base,
- Long response times
- Lengthy UX debt list
- Unusable navigation
- Decreasing ad impressions

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The redesign: goals and requirements

We gathered general requirements first:

- Content/type-focused design
- Consistent navigation/IA, there was over 2000 articles in the backend and had to ensure they fit with the navigational system.
- Lean semantic code base
- Css3/html5 and wordpress
- IE8 support
- Ads displayed at 1024px +
- Fully accessible without images and JS
- As few images as possible
- Stable, high-end performance
- Meaningful responsive layout

Then created a **design persona.** *A document that outlines the key traits of the personality you wish to convey in a design.*

Collect existing attributes	-	who we are
Wish list attributes	-	who we want to be
No-go attributes	-	who we don't want to be

And then wrote a **redesign manifesto**
e.g. Design should not be encumbered by bloated code, like JS libraries

How can we make our ad-supported content more attractive than its ad-free counterparts?

I.e. User go to Instapaper to read articles instead of the actual site.

By focusing on exceptional, beautiful reading experience – important that they enjoy reading on the site.

We decided to design a multi-column, app-like experience



For us, it was much more than just changing layout. It was about rebranding.

Changed colour scheme. Colour palette as well as link colours etc.

Typography-out approach

It's all about perfect measure of typography
But that was difficult for 2000 articles.

Typefaces should be well optimized for long reading.

How to incorporate ads AND clean content

Whilst typography was a constant in our design decision all other decisions were variables.

Tools and techniques

We iterated our design process directly in the browser, using CSS. Type rendering in Photoshop is different than in the browser. **They did not use Photoshop at all.**

Just used *Subversion, Webkit Inspectorm Window Resizer*

We used *HTML5 Boilerplate, Modernizr, Respond.js*
Existing styles were overwritten by new styles.

The markup was styled as a fluid grid using em's and percentages for (almost) everything

For consistency, we committed to using only precise, unarbitrary values (i.e. 6% rather than 5.69383748343%). Helps minimize error rates and creates (?) towards the designer's vision.

Started creating from the Bottom up (mobile) and then to the web.

We never targeted specified devices, we introduced media queries when it felt natural to do so.

We used .mini as alias to display elements in mobile view with a display: none in the relevant devices.
DOUBLE MARKUP *(Questionable technique??)*

[code]

[same code]

However this was changed later on. Responsive madness! Maintenance problems etc *(Exactly!)*

Media queries collision

Also used lots of CSS3…
Rgba box shadows and gradients.

They used very small sprites. Wanted to reduce the amount of images as much as possible. Pretty much no images used. Just one small square sprite.

Subtle transitions to make site smoother. Modernizr

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*Resolving the CSS Percentage Problem was easy with **box-sizing: border-box***

Three columns 33% width with padding and border

Then what if you want two column layout. The CSS will break

If you define the width, then the padding and border will be included in this. WORKS ON IE8. Firefox and webkit prefixes

```
-moz-selection {
        Background-color:
} <!--Change background colour when highlighting words-->
```

Performance optimization

Using thing called **tilt** to see how the DOM looks. Social media taking up a lot.

Once they removed facebook buttons there was more likes in their articles and better comments!

We integrated server-side optimization and front-end optimization.

- Load balancing server architecture
- Advanced caching mechanism
- Minified CSS/JS + GZIP compression
- Minified/cached images for mobile – In Wordpress they generate thumbnail of image to pull to the mobile.
- Conditional loading with JS/PHP

Fonts

They had to have 8 fonts regular, bold, italic, bold italic.
Uploading fonts was a *huge* performance hit compared to the markup.

What if remove fonts from mobile? However they didn't want to compromise integrity of design amongst different devices.

Relaunch

Click rates increased dramatically.

***
Smashing magazine redesign: Case study
@smashingmag

Heatmap: Craziac.com (sp?)

Did not design using Photoshop at all. It is a clean design with no images. All work in text editors. Started with basic wireframes etc.

Spotify: A web developer's perspective

Andy Smith @asmitter

The most amazing thing that first got him to notice Spotify was the URIs.
Spotify URIs: turns any track, artist, album into a link. That is now music.

He created Spotibot – Twitter based user recommendation tool. Send the bot a tweet and it sends you a recommendation back. However back then Spotify did not have an API. They did it using a Google spreadsheet. Problem with this was that it was only farming responses based on recent updates. Not the whole database.

And then Spotify launched metadata API.

He then created Spotibot playlist generator

Working at Spotify

Platform team works within the client rather than a browser.

HTML is everywhere. Windows, phones, TV, Games consoles and it is also in Spotify.

What's it like working in Spotify team?
They use Chromium Embedded Framework
Embedded in the Spotify Client

Webkit rendering engine, NO OTHERS! He only needs to focus on ONE browser. (Lucky git!)
CSS3, HTML5 etc.
Extended via JS APIs

http://developer.spotify.com

Exposure

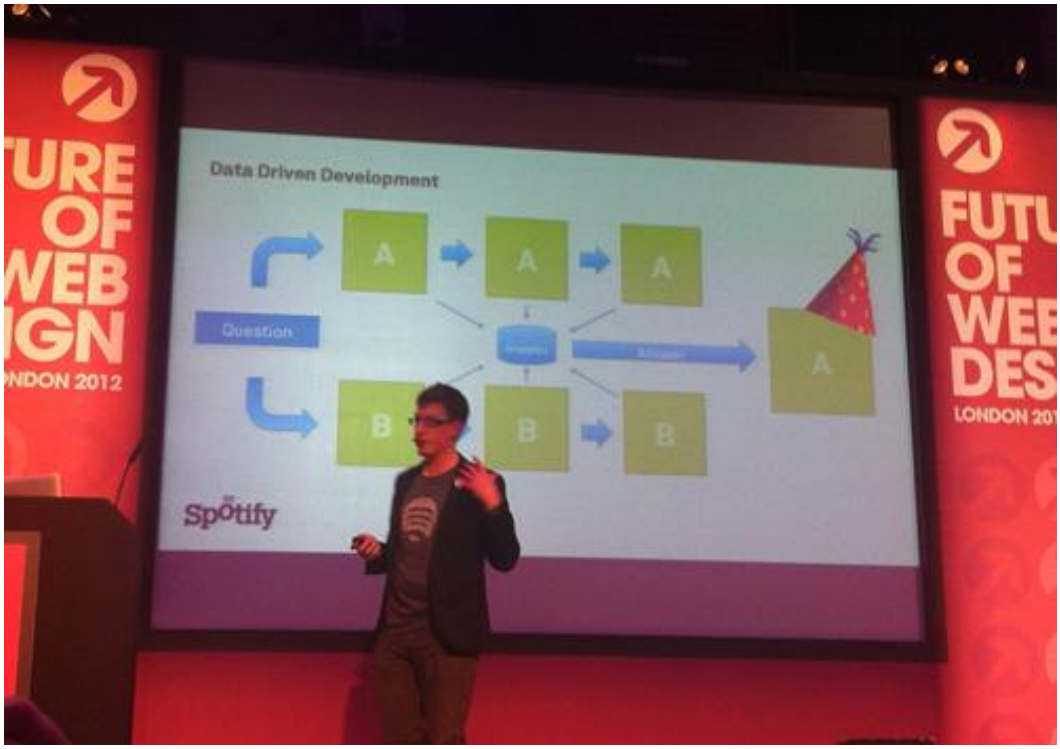
Over 10 million active users
Tweaking line-height using CSS in Spotify

Allowing ourselves to extend client experience using stuff we already know.
Spotify is also the host.
If click a box on browser that interaction is generally lost.
Create granular, definitive actions on the mobile.

Data-driven development

Using actual facts to drive design and development

- First post problem as a question
- Then provide answers to that question
- Small script which seeks answers and pumps data/answers back into analytics
- **Let it run as long as it takes**
- Eventually you have data and which was the most appropriate answer to the question



Designer-developer relationship

Never underestimate this. Never see them as separate entities.

Designer – designers have two customers – the user (can they use it?) and the developer (can they build it??)
Developers – developers have a responsibility to implement design properly. Their responsibility to open conversations with the designers. What's the mouseover states, transitions etc? Is there stuff the developer can do that can improve end-user experience? We're both responsible the site.

Close the gap, open the conversations.

Version control, JS Frameworks, QA etc..

@asmitter
http://open.spotify.com/user/andysmith
twitter.com/spotifyplatform

Dr. Weblove or: How I learned to stop worrying about Photoshop and love designers

Remy Sharp @rem

How I go from a visual design (mock) and make it a real webby thing.

Designers: How to prepare a design that looks good
Developer: How to build the design

Communication is key.

Basics

See all the problems in a mock immediately.

Designers should go out and see what's possible within the code. It will benefit the designer to understand what's happening and get closer to the developer.

Hover states are never actually shown. They are sometimes implied. If get PSD, developers need ***every*** hover state.

Feedback states are never designed i.e. error states/pages?. Not stifling creativity just pointing out errors.

He likes **getting grids back from designers**. But if there are too many exceptions in a grid than this isn't great

Be wary of fonts..

Don't let your ***design deficient developer (!!!!)*** do this design for you…it will look crap.

Liquid layouts
Fixed sizes
Responsive design
Tiny variances

Deconstruct the design

Interaction is invisible
What's clickable
What's touchable
What's the target platform

Costing

Never give quotes off the bat
Break it down into components

Deadlines are a cost factor – if client wants it quicker, it will cost more.
Cost IE6 separately

Google supports latest browser version -1 (minus 1), so does he.

Add 40% more for IE6 support. Basically it costs.

Estimates & quotes

Get it wrong first
Track your hours
To be able to compare the hours with the quote
Repeat this process (i.e. he was consistently 20% out)

Experience will help with quotes

Urgent rarely means urgent

Prototype early, but it is not for going live. Make sure it doesn't make it to live environment.

Take a design and write exactly where the elements are (see pic)



Style for design/desktop fixed width
Style for lowest possible size
Style for multiple deployed versions – aka gmail

DO Javascript last!!!

jQuery plugins

Good for fast prototyping
Plugin quality is mixed and often do way more than you need

(Sites for designers to play with code)
ixedit.com – wireframing with a bit of JS
jqueryfordesigners.com

1) Build without jQuery
2) Design the start and end of your effects without jQuery
3) Add jQuery a little at a time

How to find right plugins

Github – good resource for open source projects.

- check commits and last activity
- check issues being opened and closed – lots of bugs does not mean problems. It means more people are using it and if its closed than its being maintained.

Offline – not quite offline

Let client see it in prototype stage
Use Dropbox
Get a short url for mobile testing

- Remember function as well as form
- Anticipate the invisibles
- Prototype
- KI(RF)SS