The voice of **web design**

Issue 269: August 2015: net.creativebloq.com

OPTIMISE YOUR SITES FOR MOBILE

Monitor and improve performance with Google

25 HOTTEST WEB DESIGN TECHNIQUES



LEADING DESIGNERS AND DEVELOPERS REVEAL THEIR TIPS FOR BUILDING A BETTER WEB





RESELLER HOSTING

START YOUR WEB HOSTING BUSINESS TODAY FROM JUST £9.99 MONTH

YOUR HOSTING COMPANY

Host Unlimited domain name

100% Branded to your business

Easy to use web based control panel

Wordpress installer

Plus much more



- Up to 10GB Space
- Premium Email Accounts
- Host up to 30 websites
- Web Based Control Panel
- Windows 2012 R2 or Cloud Linux 6
- Instant activation

CLOUD VPS SERVERS FROM £15 month

- Build a server to your exact requirements
- Scale up to 10GB Ram
- Fail safe hardware
- One click backup & restore
- Catalogue of Operating systems
- Plesk or CPanel also available
- Instant activation

£54.99 month

- Latest Dell Poweredge servers
- Multiple Intel Processors
- Up to 4TB disk space
- 10TB monthly bandwidth
- Windows or Linux OS available
- Plesk or CPanel also available
- 1Gbit port

Hosting Heroes

Our heroes are available to answer queries and provide technical support 24 hours a day, 7 days a week.

No Contracts

All our products are contract free. You can cancel at any time by giving us notice before your next billing due date.

99.9% uptime guarantee

To ensure your website is always online, we provide a 99.9% uptime guarantee.

Use coupon code DOTNETMAG to receive 30% of todays order.







* WELCOME

EDITOR'S NOTE

Sometimes we can get a little carried away with our tools. We create new frameworks like there's no tomorrow; there's nothing that couldn't be solved with a new plugin. But it all adds up.

Sometimes our focus on tools comes at the expense of the user. That's why we have invited The Pastry Box's Alex Duloz and Katy Watkins to compile a list of techniques to help us build a more efficient web.

Alex and Katy have done a fantastic job with their blog and are extremely well connected, so they were the perfect choice. They have reached out to some of the best web designers and developers in our industry who have provided 25 amazing

tips. So turn to page 68 to tackle JavaScript, HTML and CSS without neglecting your users.

We've also got some excellent freebies for you! You will already have spotted your Quick Guide to Prototyping book, courtesy of UXPin. There's also a three-month trial to Frontend Masters, a frontend web development training platform packed with over 150 hours of workshop videos, and Q&As hosted by experts such as Douglas Crockford, Estelle Weyl and Jonathan Snook. Flip to page 82 for details.

Oliver Lindberg, editor oliver.lindberg@futurenet.com @oliverlindberg

FEATURED AUTHORS

ALEX DUL 07



Alex is the owner of the Pastry Box Project. From page 68 he and Katy Watkins compile 25 hot tips from the world's leading web designers w: the-pastry-box-project.net t: @alexduloz

LAUREN CURRIE



Lauren is the co-founder of service design agency Snook. On page 28 she explores how designers can use their talents to change the world

w: redjotter.wordpress.com

t: @Redjotter

CHRISTIAN HOLST



Christian co-founded Baymard Institute, which conducts studies of ecommerce sites. From page 76 he looks at four ways to improve product lists

w: baymard.com t: @KiehnHolst

JENN WONG



Jenn is a self-taught frontend dev based in San Francisco. On page 84 she explains how to code like it's 1999 and create responsive emails

w: mochimachine.org

t: @mybluewristband



Future PLC, Quay House, The Ambury, Bath, BA1 1UA +44 (0)1225 442244

🄟 (@netmag 🗗 /netmag 👸 +netmagazine 🖪 flickr.com/photos/netmag 🔀 netmag@futurenet.com 📵 net.creativeblog.com

FDITORIAL

Editor Oliver Lindberg oliver.lindberg@futurenet.com, Production editor Ruth Hamilton ruth.hamilton@futurenet.com, Art editor Mike Brennan mike.brennan@futurenet.com, Designer Rich Carter richard.carter@futurenet.com, Commissioning editor Julia Sagar julia.sagar@futurenet.com, Deputy commissioning editor Sammy Maine sammy.maine@futurenet.com, Staff writer Alice Pattillo alice.pattillo@futurenet.com, Acting staff writer Jem Roberts jemquitegood@yahoo.co.uk

FDITORIAL CONTRIBUTIONS

Anthony Anderson, Dale Cook, Gene Crawford, Lauren Currie, Annie Cushing, Ben Foxall, Martin Gontovnikas, Aaron Gustafson, Christian Holst, Meg Lewis, Tom May, Cassie McDaniel, Shane Osbourne, Calum Ryan, Alastair Somerville, Bryn Taylor, Luke James Taylor, Steven Trevathan, Katy Watkins, Steven Wilson, Clark Wimberly, Jennifer Wong

ART CONTRIBUTIONS

Steven Bonner, Ben O'Brien, Rob Monk, Ben Mounsey

MANAGEMENT

Content and marketing director Nial Ferguson nial.ferguson@futurenet.com Head of content & marketing, photography, creative and design **Matthew Pierce** matthew.pierce@futurenet.com Group editor-in-chief Dan Oliver dan.oliver@futurenet.com, Group art director Rodney Dive rodney.dive@futurenet.com

ADVERTISING Client director Suzanne Smith suzanne.smith@futurenet.com CIRCULATION Trade marketing manager Juliette Winyard juliette.winyard@futurenet.com PRODUCTION Production controller **NoIa Cokely** *noIa.cokely@futurenet.com* Production manager Mark Constance mark.constance@futurenet.com LICENSING International director Regina Erak regina.erak@futurenet.com SUBSCRIPTIONS Phone our UK hotline 0844 848 2852; international +44 (0)1604 251 045 Subscribe to net online at myfavouritemagazines.co.uk

NEXT ISSUE ON SALE 9 JULY 2015

All contents copyright © 2015 Future Publishing Limited or published under licence. All rights reserved. No part of this magazine may be reproduced, stored, transmitted or used in any way without the prior written permission of the publisher. Future Publishing Limited (company number 2008885) is registered in England and Wales. Registered office: Registered office: Quay House, The Ambury, Bath, BA1 1UA. All information contained in this publication is for information only and is, as far as we are aware, correct at the time of going to press. Future cannot accept any responsibility for errors or inaccuracies in such information. You are advised to contact manufacturers and retailers directly with regard to the price and other details of products or services referred to in this publication. Apps and websites mentioned in this publication are not under our control. We are not responsible for their contents or any changes or updates to them. If you submit unsolicited material to us, you automatically grant Future a licence to publish your submission in whole or in part in all editions of the magazine, including licensed editions worldwide and in any physical or digital format throughout the world. Any material you submit is sent at your risk and, although every care is taken, neither Future nor its employees, agents or subcontractors shall be liable for loss or damage



Future is an award-winning international media group and leading digital business. We reach more than 49 million international consumers a month and create world-class content and advertising solutions for passionate consumers online, on tablet & smartphone and in print.

Future plc is a public on the London Stock Exchange (symbol: FUTR)

Chief executive Zillah Byng-Maddick Non-executive chairman Peter Aller Chief financial officer Richard Haley

Tel +44 (0)207 042 4000 (London) Tel +44 (0)1225 442 244 (Bath)





We are committed to only using magazine paper which is derived from well managed, certified forestry and chlorine-free manufacture. Future Publishing and its paper suppliers have been independently certified in accordance with the rules of the FSC (Forest Stewardship Council).



APPS USED

Google Docs, Dropbox, InDesign, Illustrator, FutureSource, Future Folio, GitHub

PAPER

COVER PaceSetter Gloss 250gsm P3-82 Galerie Fine 100gsm P83-114 Grapholvent 70gsm

TYPEFACES

Antonio, Share Tech, Merriweather, Titillium Web

A domain name for every occasion

Choose from **hundreds** of **new domains** for you and your clients

FROM **£3.49**per year

ex yat

Get your clients off to a great start with a memorable domain name

Domains such as:

.photography

.email .tips

.guru

.agency .xyz

.today

.technology

.london

Whatever website you are creating, whether it is for a friend, your clients or just yourself, we have a domain that will suit all your needs perfectly.

Why 123-reg?

J We host over 1.7 million websites

J The UK's #1 domain registrar

✓ Full DNS control

... and many more

J UK based support team

london





kolor.

Visit www.123-reg.co.uk





Issue 269: August 2015: net.creativeblog.com



SIDE PROJECT OF THE MONTH

Scott Riley explains Mentor, an app that offers valuable guidance to new designers

CLIENTS FROM HELL

A seemingly trustworthy client starts ripping off work from other designers

BEYOND PIXELS

20

17

Web developer Calum Ryan introduces the cycling club especially for web pros

NEED LIST

21

This month's objects of desire include a guide to dealing with tight-fisted clients

EVENT REPORT

23

Tom May recounts the highlights from Future of Web Design in London

VOICES

MULTI-DEVICE INTERACTIONS

Ben Foxall considers how devices can take on different personas in the modern age

GUILTY BY ASSOCIATION 28

Design can change the world. Lauren Currie urges designers to be more responsible

BIG QUESTION

38

40

How do you tackle user research and testing? We asked seven professionals

Q&A

Bob Baxley, head of product design at Pinterest, shares his insights

* FEED

WORKSPACE

18



Ghostly Ferns is a family of creative freelancers who live in a haunted attic. Meg Lewis shares the stories behind the office decor



* VOICES

INTERVIEW

32

Håkon Wium Lie talks about how he saved the web with CSS, and why commercial monopoly is the biggest threat to the industry at the moment



SUBSCRIBE TO NET AND SAVE UP TO 60%

TAKE ADVANTAGE OF THE NEW PRINT AND DIGITAL BUNDLE

Turn to page 24 to find out more



* REGULAR

GALLERY 44

Cassie McDaniel shares her favourite sites, including one which flips the trend for longscrolling pages on its head





25 HOT WEB DESIGN **TECHNIQUES** 68

Katy Watkins and Alex Duloz pool advice from leading designers to help you build a more efficient web

DESIGN FANTASTIC PRODUCT LISTS

Christian Holst shares insights from a large-scale ecommerce study to guide you towards the best product lists

76

90



* PROJECT

CREATE A LOGO WITH AFFINITY DESIGNER

Dale Cook walks you through how to create a logo with this popular new design software

Look out for the video icon in the tutorials for exclusive screencasts created by the authors

REGULARS

NETWORK

8

The latest mail, tweets, posts and rants

EXCHANGE

10

Nicolas Bevacqua, Jon Gold, Henny Swan and Hazel Jennings answer your questions

SHOWCASE

DESIGN CHALLENGE

52

Three designers mock up fast food sites

FOCUS ON

56

Gene Crawford on not hiding the good stuff

PROFILE

58

Designer Ignacio Giri mixes digital and print

HOW WE BUILT

64

84

Amnesty.org by Code Computerlove

PROJECTS

MASTER RESPONSIVE EMAIL

Jennifer Wong shows you how to design responsive emails fit for 2015

TEST ON MULTIPLE DEVICES 94

Shane Osbourne explains how to use BrowserSync to test your sites thoroughly

HEAD TO HEAD

97

98

Compass versus Bourbon

DESIGN AN SPA WITH EMBER

Steven Trevathan explains the secrets behind building an effective SPA

WEB STANDARDS

103

Aaron Gustafson on extablishing standards

MOCKUPS WITH ANGULARIS

Martin Gontovnikas on how to use Angular to quickly build navigable prototypes

MOBILE PERFORMANCE

108

Annie Cushing introduces the tools that will help you measure mobile performance

ACCESSIBILITY

114

Alastair Somerville on sensory UX

IIKK

Mail, tweets, posts and rants



★CONTACT US > @netmag | /netmag | +netmagazine | netmag@futurenet.com | net.creativeblog.com



\sim TIME SAVER

I wanted to respond to a letter from Mark Williamson in your June issue. It's titled 'Death to frameworks', and it states that 'frontenders' are becoming obsessed with grids. Part of this may be true, but I see this as a result of clients that want their projects delivered 'yesterday'.

It is hard to find clients who are willing to pay for your time, especially if you are a freelancer like me. I can create a responsive WordPress theme in less than three days. Now, I don't mind spending more time on a project if I can get paid for that time. But in reality everybody wants their job to be done ASAP.

It's not that the creativity is gone because I want grids, it's because it is cheaper for the client. The only projects

where you can spend time working creatively are for larger brands, but there are not so many projects like this, and you need money to make a living. Unfortunately it's like that from my point of view. Vlado Bosnjak, Zagreb, Croatia Thanks for getting in touch Vlado, you make a very good argument. What do our readers think? Is the lack of creativity in the web design industry the fault of complacent designers, or should we be pointing the finger at demanding clients?

ITCSS LOVE

Just read in @netmag about #ITCSS by @csswizardry. Looks like a great CSS architecture! Find more info at @itcss io.

Dave Gámez, Monterrey, MX

Just ordered the June copy of @netmag for the sole purpose of reading @csswizardry's article on @itcss_io.

Steven Adams, Northern Ireland We had a great response to this article in issue #267, in which Harry Roberts introduced Inverted Triangle CSS - a new architecture for managing large-scale CSS projects. You can read about how he came up with the concept at netm.aq/ITCSS-269. If you want to read the

full article, you can order a print issue online at netm.aq/ back-269, or pick up a digital edition (see page 42).



SIZE MATTERS

Nearly a decade ago, Dan Sumption wrote an article about making your sites lighter. He tweeted about it recently and it sparked off quite a debate (see it in full at netm.aq/size-269):

@dansumption In 1996 I wrote an article for @netmag on squeezing your webSITE into 500kb. It's crazy that many single PAGES are now bigger than that.

@olliewells Interesting. One could argue that with bandwidth availability and price, 500KB is not that large. @dansumption One would be arguing wrongly. Bandwidth limits still exist, even if not where you are.

@olliewells Completely agree - but I would prefer to embrace advancements as opposed to be constrained by past limitations.

@dansumption Yes, some great advances, but also some monumental steps backwards. **@olliewells** I agree, just think we need to see both sides and not stifle development.

@dansumption I certainly don't want to stifle development and know how many balls devs have to juggle. Still, 500KB is a LOT.

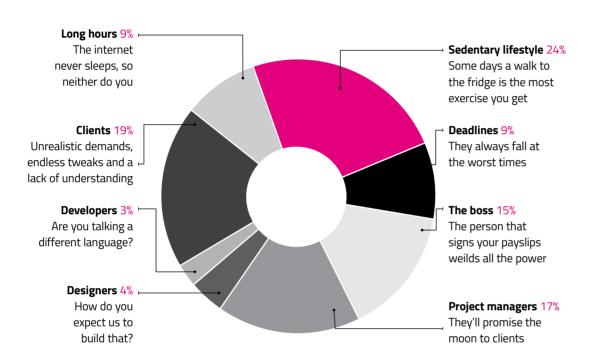
@dansumption ... and of course many pages are much bigger. I've seen 10MB+, that's not a web page, that's a PSD! **@olliewells** Ha! Indeed.



Under 500KB Way back in issue #24, Dan Sumption explored how to squeeze your site into 500KB. Take a look at his advice at netm.ag/500-269

★THE POLL

WHAT ANNOYS YOU MOST ABOUT YOUR JOB?





From our timeline

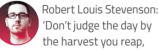
What's the best piece of advice you've received in your career to date?



Talk about your work and achievements because no one else

will do it for you.





but by the seeds you plant' @bastianallgeier



Don't undersell yourself. Don't set prices too low. @clivewalker



Take time off. Work will always be there, but your health won't.

@matthillco



Being a bit selfish isn't a bad thing: dump that client that makes you

miserable and find a better one. @RichardCarter



'Aim for better, not perfect' (pretty sure that was @alunr)

@JamieKnight



Blog about what you learn while you learn it. It's a great way to better understand and helps others on the same path.

@donovanh



Be yourself. People will invest not only in your work but also

in your personality. @zer0mike



If you're working from home always put shoes on. Taking them off in

the evening helps switch your mental mode to home.

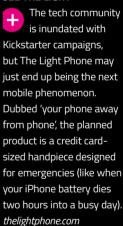
@justinavery

COOL STUFF WE LEARNED THIS MONTH

LIKE YOUR TONE



SEE THE LIGHT



FLEXBOX GUIDE

Flexbox is a potential lifesaver – a new CSS layout spec helping coders to construct dynamic layouts in the easiest way. However, many of us are still getting to grips with it, so hooray for Landon Schropp, who has used the system to design a series of dice as a very basic walkthrough. netm.ag/flexbox-269

EXCHANGE

Send your questions to netmag@futurenet.com

Practical advice from industry experts

THIS MONTH FEATURING...

NICOLAS BEVACQUA



Nicolas is a JS consultant and author of JavaScript Application Design w: bevacqua.io t: (@nzgb

JON GOLD



Jon is a designer and fullstack developer working on The Grid w: jon.gd t: @iongold

HAZEL JENNINGS



Hazel is Instagram's first content strategist. She lives in San Francisco w: hazeljennings.com t: (@HazelJennings

HENNY SWAN

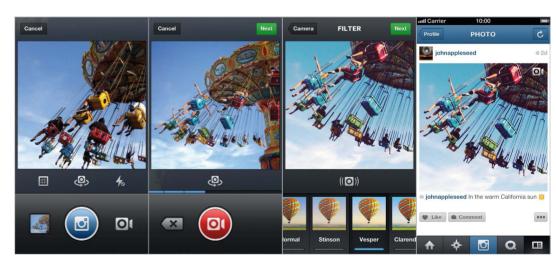


Henny is accessible user experience design lead at The Paciello Group w: iheni.com t: (@iheni

*QUESTION OF THE MONTH

What's the most common content strategy problem you face at Instagram?

Niamh Curtis, Carloway, UK



Strategic approach Instagram's content strategy needs to cater to the needs of over 300 million users daily

HJ: Keeping up with a highly creative and ever evolving community. Over 300 million people around the world use Instagram and they all have different ideas about what kind of photography they find beautiful, what accounts they want to follow and what kinds of photos and videos they want to share. We can never make assumptions about what people want out of the Instagram experience. Just because we think we've figured it out for one small subset of people doesn't mean we're solving problems for everyone. We're always researching, iterating and developing. It's part of what makes the work so exciting – but it's never ever finished, and it's never easy.

CODING

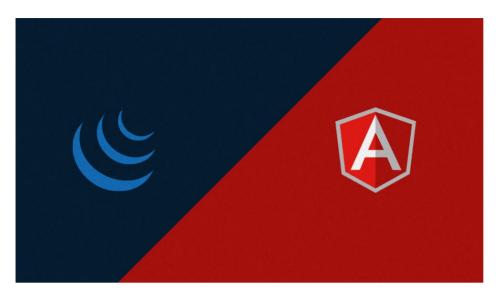
CODE QUESTIONS

Should designers learn to code?

Dan Edwards, Chichester, UK

JG: I think so. Even if you're not coding in production at work, it's really important to gain an understanding of how your medium works. When we work with physical materials – oil paint or gouache; medium format or 120 film; wood or clay – the medium has a central role in the creative process.

I don't think screen-based design is any different. The medium is key to the form, and it's exciting, challenging and responsible to learn how best to harness it. Even if it's not you personally writing optimised production code.



Angular vs jQuery jQuery and Angular provide ways to organise your codebase across different views when building a single-page application

ANGULARIS

ANGULAR VS JOUERY

When is AngularJS better than jQuery? Taj Etheridge, Queensland, AU

NB: Whenever you are designing a single-page application, you need a way of organising your codebase across the different views in your app. With Angular, you can split your code into different controllers, directives and services. With jQuery, you'll eventually end up writing code that enables you to divide your code into controllers, components and services, while Angular already gives you that. Would you rather implement the architecture yourself or let Angular do it for you?

DEVELOPMENT

DEV ENVIRONMENTS

What's the best development environment for accessible responsive design? Bourbon? Bootstrap? Why?

Patrick Johnson, Brooklyn, US

HS: We've found Bootstrap (getbootstrap. com) to be fairly conducive to accessible web development. However, regardless of what framework you choose there are key considerations. At all break points, content placement on screen should match content order in the DOM. Sometimes responsive designs cause content to reflow in a different visual order as breakpoints are triggered, which is confusing for users. Also

ensure no horizontal scroll when a user increases font size. This is often handled with the use of rem units.

With all frameworks, the final result really depends on how developers code the HTML that the CSS and JavaScript acts on. Always follow documentation about including accessible/hidden text, adding correct initial aria- states/roles, and so on.

CONTENT STRATEGY

GETTING STARTED

How can I create a winning content strategy plan? I'm not sure where to start or what steps to take.

Miguel Dyson, Massachusetts, US

HJ: Start investigating and collaborating. Depending on what kind of organisation you're working with, chances are they already have a voice and content has been written. Find out who wrote it, why they chose the words they did and what their goals were. Get in touch with your customers through testing, analytics, user research or some other channel, and figure out what they're responding to - positive or negative.

Remember that words are everyone's business and no one person can own them. Try not to think of it as fixing what other people have been doing poorly think about building on what's been going well. Developing a company's voice or starting a content strategy is



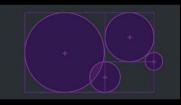
What's so cool about **Grid Style Sheets?**

JG: Flexbox is a big leap forward, but it's still awkward to code up really complex, intricate designs with. Here are three cool things I love GSS for ...



MATHSY DESIGN

calc() is so limited in CSS: in GSS you're free to get wild with your numbers and calculations. It's great for hacking on modular scales and organic, ratio-based design.



RELATIVE DESIGN

GSS is perfect for positioning items based on attributes of others. No more position-absolute-withinposition-relative faffing. Code it like you've designed it, rather than making compromises based on your DOM.



FLUID DESIGN

Rather than using breakpoints, GSS lets you guide sizes and positions

with _constraints_ . This should be greater than that, but less than the other. You can build up intricate design systems in a way that's not possible with px/em/% or with flexbox's growing/shrinking.



never hatched from scratch. Start by digging. Find out what's been working well, learn from what hasn't, and build on that foundation.

ANGULARIS

TESTING TIPS

What's the best way to perform end-toend tests in AngularJS?

Florian Kwant, Wilnis, NL

NB: There's a Grunt plugin for Protractor (Angular's official test runner) that vou can use to run your E2E tests. Run the command below to get the plugin:

npm install grunt-protractor-runner --save-dev

You need to indicate to Grunt where your Protractor configuration file is. Writing tests is as easy as using a few promises. Follow the official Protractor tutorial to get started (netm.ag/protractor-269).

ANGULARIS

ADDING ACCESS

How do I go about making my AngularJS applications accessible?

Dominic Faulkner, Burgate, UK

NB: A couple of things you might want to look into are keyboard navigation and the ngAria module. Making sure people are able to focus on the different parts of your application, in the right order, just using the tab key is important. You can improve your situation by having clean markup, using buttons or anchor links for actions, and by generally following web standards. ngAria automatically



Testing tips Protractor is AngularJS's official test runner. It's a Node.js program and you can download it using npm, then get started writing tests

configures aria-* attributes by inspecting elements, improving accessibility, aria-* attributes are used by screen readers to better understand a web document.

ACCESSIBILITY

CONFORMITY ISSUES

Which tools would you recommend to test your website for accessibility conformity and issues?

Luke James Taylor, Sheffield, UK

HS: There's so much choice, but ultimately the tools you use will depend on your workflow. I do have a core toolset however. For testing in the browser I use the Web Accessibility Toolbar (IE), the Colour Contrast Analyser (Windows and Mac) and Wave (cross browser). These test core Web Content Accessibility Guidelines on a per-page basis for structure, alternatives, content order, colour contrast and so on. Tenon.io is a great tool for testing during development and can be integrated into your workflow be it unit testing, acceptance testing, or issue tracking.

Ultimately, nothing beats using a screen reader however. NVDA (Windows), VoiceOver (OSX and iOS) or Google

Talkback (Android) are free. With with some initial investment learning. these are really powerful tools.

CONTENT STRATEGY

STICKY STRATEGY

What are the secrets to a supersticky strategy?

Jen Heise, Arkansas, US

HI: I don't know if there's a secret ... I think success is totally dependent on your goals, your medium and your restrictions. However, one element that is often overlooked, but extremely valuable, is iteration. Constantly evaluating work through both user research and analytics can help clue you into what's working and what's not. Often, changing just a word or two can make a world of difference for completion rates. No change is too small to effect change, and a series of small, tested iterations is often the best way to get to the best solution.

FRAMEWORKS

FRONTEND FRAMEWORKS

What's your take on Ember versus other frontend frameworks? Best use cases? Certain types of apps?

Patrick Johnson, Brooklyn, US

JG: I love working with Ember.js. I find it super-stable and maintainable for building complex web applications. It relies on strong conventions and patterns, which makes it great for hacking on with other developers. No second guessing, no reinventing the wheel - whenever you add a new feature, everything tends to be exactly where you expect it to be, and it's really easy to test and reason about. If you haven't tried it in a while, it's worth checking out ember-cli for an incredible developer experience.



Conformity issues Screen readers like VoiceOver are great for boosting accessibility



Setting a **New Standard** for Customer Support





■ Really impressed with @tsohost customer service.
3 problems, 3 solutions, all done in less than 10 mins.



Visit tsohost.com and get 25% off your first Cloud Web Hosting order with the code NEWSTANDARDS.

^{*} Real Tsohost staff member. ** One claim per person, per order. All subsequent renewals will be charged at Tsohost's standard price.



11 REASONS WHY YOU SHOULD ATTEND **generate LONDON**

Grand Connaught Rooms: 17-18 September 2015

The conference for web designers, presented by net and Creative Bloq, is back! Here's why you need to be there ...

01. An outstanding speaker line-up

We've put together a stellar bunch of people for this event (see netm.aq/speakersLondon)

02. Two days, one track

We've expanded the conference to two days, one track, so you won't miss anything!

03. Tomorrow's trends today

Learn the principles and techniques you need to stay ahead of the curve

04. Shopify's interactive workshop

Get an overview of the Shopify platform in this 30-minute session

05. Superb networking opportunities

Make contact with fellow web folk in a fun, energised environment

06. An amazing location

Generate will take place at the Grand Connaught Rooms, just off Covent Garden

07. Hang out with the speakers

Why not share a beer with the speakers and the Generate team the day before the show?

08. Party the night away

Don't miss our party at the end of day one, for more networking opportunities

09. The net awards

The net awards ceremony is taking place on the evening of day two. Celebrate with us!

10. Exclusive Generate videos

Afterwards, you'll get exclusive online access to all the talks you may have missed

11. Did we mention lunch?

If you still need persuading, here's a final clincher – the lunch will be fantastic!



ERIC MEYER



RACHEL ANDREV



SARA SOUEIDAN



JOHN ALLSOP

TICKETS ON SALE NOW

Explore CSS, UX, web performance strategies, the Internet of Things and much, much more!

generateconf.com/london-2015

People, projects & paraphernalia

THIS MONTH FEATURING...



SIDE PROJECT OF THE MONTH

Scott Riley explains the thinking behind Mentor, an app that offers nuggets of valuable information to young designers



CLIENTS FROM HELL

A designer gets caught out when a seemingly trustworthy client starts ripping off work from other designers



WORKSPACE

Ghostly Ferns is a family of creative freelancers who live in a haunted attic. Meg Lewis shows us round

18



BEYOND PIXELS

Web developer Calum Ryan introduces Pixel Velo – the cycling club especially for web professionals



NEED LIST

This month's design objects of desire include a handy guide to dealing with tightfisted clients, and a futuristic camera

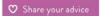


EVENT REPORT

Tom May recounts the highlights from Future of Web Design – including Stephen Hay's discussion of "benevolent deception"



MENTOR



Money is a byproduct of awesome. Don't try to make money. Just make awesome.

with \heartsuit from carlsmith

Show Me Another







MENTOR

Scott Riley created this site to feed droplets of information to fledgling designers

* SIDE PROJECT OF THE MONTH





net: Tell us about your day job ...
SR: I lead user experience at Pact Coffee, which is the greatest-smelling office in the world (probably). I'm mostly doing UI and interaction design work and helping make the digital side of our product as lovely as possible.

net: Where did the idea for Mentor come from?

SR: Mentor (*mentor.so*) came from a combination of chatting to newer designers and seeing a lot of more experienced people (and myself) taking the smaller, more tacit techniques they have learnt for granted. I wanted to make something that revolved around sharing that kind of stuff with newer designers.

net: Why do you think it will appeal to designers? SR: One of my favourite aspects of the web industry is our approach to sharing knowledge, but I think there's a tendency to lean towards the complex.

I wanted Mentor to become a place where anyone could visit for a couple of minutes and just get a certain kind of advice. Basic content is the whole point and everything is quick to read but still potentially impactful.

net: What did you enjoy most when creating it?

SR: Learning Backbone and building something from scratch was something I enjoyed and hated in equal measure. My favourite quotes are probably from Chad Tomkiss ("Never work for the \$. Do what makes you happy") and Carl Smith ("Money is a by-product of awesome. Don't try to make money. Just make awesome"), because they resonated with me.

net: Did you face any challenges?

SR: I'd never worked with Backbone.js or done any full-stack JS development before but wanted to give it a try and Mentor was the app I decided to go with. I overcame challenges by asking people better than me for help, and being nice to them when they did.

net: Finally, who inspires you the most?

SR: Jon Gold (*jon.gd*). He is the love of my life and we just have the best chats, especially about the future of the web. Also, Ben Howdle and his JavaScript workshops make life a hundred times better.



A RIP OFF

Exclusively for net: the latest in a series of anonymous accounts of nightmare clients

* CLIENTS FROM HELL

I used to have a century-old church as a client. The work I did for them was often related to fundraising, and it was a great client for the years we worked together.

I would mostly typeset work for them using graphics they had commissioned through other designers. The artwork they provided was always professional quality and more than adequate for their needs. They were also very professional in their dealings: all orders were fully paid in advance, they always ordered before they ran out of something, and so on. They had never done anything to make me concerned they were a Client From Hell.

Then one morning, they contacted me about putting together a new piece. The church had initiated a fundraising drive with a catchphrase. I was told that they had several logo concepts that the staff were trying to decide between. What they wanted was a quick mockup using comps of the logo candidates. Attached to the email were a handful of low-res images.

Despite the poor quality, a glance told me that the underlying designs were done well,

so I assumed that I'd be receiving a full resolution copy of whichever one they chose in the end. Something caught my eye as I placed all the comps into the working file. Looking closer, I noticed someone's name was at the bottom of one of the images.

Suddenly, I realised that I was staring at the thumbnail image from a bookstore's shopping cart. One of the 'logo comps' was literally the front cover of a book, the title of which happened to be a close variation of their catchphrase.

After further exploration, I discovered that every other 'comp' had further variations of the catchphrase. Following a hunch, I did a Google Image search of the catchphrase to find the same thing for every 'comp'. They had cropped out the author on all but one.

I was at a loss for words at this point. It was so out of character, I had to double-check that it was the same client. Sadly, it was.

CLIENTSHELL

clientsfromhell.net



* HOW TO

CREATE WEB FORMS

Something as simple as creating a web form can turn into a minefield for designers. We asked our followers how they did it ...

KEEP IT SIMPLE

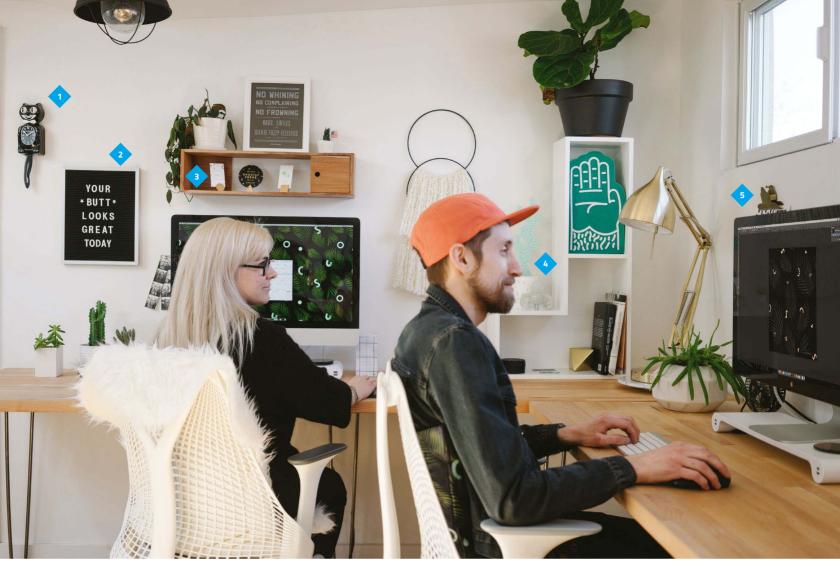
@HerbGough takes a hands-off approach. He creates forms "only when totally required, in the perfectly semantic position and on the correct page - then I get the devs involved!" @neilsteventon keeps it methodical. He suggests adding one form element at a time, "and with their powers combined they become a web form".

BE USER-FRIENDLY

@nabu1615 and @aardrian both have accessibility at the top of their priorities. The former suggests "thinking about the person behind the computer and being as clear as possible", while the latter creates forms "by hand where possible to get accessibility baked in. Otherwise, by fixing forms from libraries that fit the same accessibility benefits."

A LITTLE HELP

Other followers recommended helpful tools. "Former.io is quick and easy if you need something fast and reliable," says @McKay_1988. For basic sites @devdesignstampa suggests Gravity Forms (with the option of the Add-on Framework to make things cooler). "One table spoon of Bootstrap and a pinch of jQuery validate and the job is done," suggests @MSOwebdesign.



CURIOUS HAUNTS

Meg Lewis uncovers Ghostly Ferns' haunted attic, home to some weird and wonderful oddities

* WORKSPACE

Ghostly Ferns (ghostlyferns. com) is a family of creative freelancers who work together to solve problems for happy companies. Today, our family has grown to six goofs, made up of brand designers, product designers, a digital illustrator, a frontend developer and a hand-lettering artist. We're all best friends and extremely hard workers.

The studio is located in the attic of The Townhouse, a shared studio space located in Brooklyn. We claim it's haunted by all of the plants we've accidentally killed since we moved in. The attic is full of items that are wacky and fun, like all of us!

Since childhood I've always wanted to own a Kit-Cat Klock (1), a piece of Americana I really admired as a kid. Our attic was the perfect place to finally make the purchase. He's weird and takes me back in time to all the vintage diners I loved as a kid.

Our favourite item is the felt letter board sign (2) that we change weekly. It's where we like to express our strange thoughts and write messages to one another. It gets out of hand quickly and we like it that way.

We recently paired up with our good friends at letterpress shop Mama's Sauce to print some insane gold foil business cards and coasters (3). The results really knocked our socks off. We have them on display like proud parents.

Giant splotches of bright colour are what makes our attic exciting to us. The neon cactus sculpture from Scout & Whistle (4) is our favourite way to show off our weirdness and is also an awesome conversation piece. It's wacky, bright and tall, and we love it.

Jen Mussari is our hand lettering artist, and the only Ghostly Fern who works with non-digital materials. Jen has hundreds of scrap watercolours laying around from old clients. I recently took (read: stole) one off her desk and hung it up (5) on the wall. The splotches of paint look so beautiful and it goes nicely with a portrait of Olive, our office dog, that Jen recently captured.

Meg is the founder of Ghostly
Ferns (*ghostlyferns.com*) and spends
her days designing brands and
interaction for happy people

111WebHost

www.111webhost.com

Web hosting

Perfect for: Low budget projects

Web space: 1GB

Traffic bandwidth: 1GB p/m

Email accounts: 5

MySQL databases: 1

£1 per month

Transfer today and start saving!





KATIE KOVALCIN

Designer and author

kovalc.in

WEB PAGE TEST

This is a huge part of my designing for performance workflow. I use it either to show how heavy a design component will be or to measure competitors' sites to help set the performance budget. It helpfully integrates with whatdoesmysitecost.com to give the monetary value of using a site on a mobile. webpagetest.org

SKYFONTS

SkyFonts means I can explore the web fonts I want, in my static comps. You're essentially 'renting' the fonts for a brief period, which is enough to generate a deliverable for client approval. It also works with a variety of web font services.

skyfonts.com

PATTERN TAP

I use pattern tap anytime
I'm stuck – well – designing
a specific pattern. It's a
great source of inspiration for
patterns like navigation, tags,
hero images ... you name it.
It's usually the first place I
turn to for great inspiration.

zurb.com/patterntap



CYCLING

This month ... **Calum Ryan** introduces Pixel Velo, a cycling club exclusively for pixel-pushers

*BEYOND PIXELS

My passion for road cycling accelerated in 2012 with the buzz and excitement of Bradley Wiggins winning Le Tour, and further cycling euphoria in the London Olympics. Since then, I've been weighing up the justification for shelling out for tech upgrades versus bicycle upgrades.

The Pixel Velo group idea was initially just some social rides for friends who all happen to be in the web industry. I'm reliably informed by fellow cyclist and web guy Richard Wiggins (no relation to Brad!) that the group name was coined by Matt Cary some time around 2011, when the very first ride took place.

Generally web industry conferences are the ideal occasion for group rides as a lot of riders live far apart from each other. Most Pixel Velo outings tend to be in smaller clusters, or more often than not solo outings.

My first encounter with Pixel Velo was at Craig Lockwood's Handheld Conference 2013 in Cardiff. That post-conference ride was especially memorable as we experienced a rapid uphill overtake by Team Sky rider Geraint Thomas, who was doing some solo training.

Many of the Pixel Velo group outings are part of organised rides in UK locations including the Cotswolds, York, Cardiff, the Isle of Wight, Surrey and home of MK Geek Night, Milton Keynes. Further afield, some members have ridden the Paris-Roubaix route, combined with a spot of spectating the pros racing afterward.

What would a group be without a website? Well, at the moment there isn't one. But Jon Hicks has put together a rather insightful, pleasantly designed site with stories about interesting cycle trips from Pixel Velo riders (*ridestori.es*), and we track our rides on Strava (*netm.ag/strava-269*).

Pixel Velo's Strava club had at last count 55 members, but don't expect to see me on the leaderboards any time soon. There are varied levels of ability and frequency of cycling in the group, and my hours spent cycling versus those coding are generally skewed towards the latter.

The Weald in Kent is, as of last month, my new home, where I'm set to be regularly tackling steep gradients. Cycling can be challenging on such terrain, but it helps improve my endurance and boost my stamina – both physically and mentally. For me cycling brings with it strong fitness in mind as well as body, which is essential for highly technical but not exactly high calorie-burning work such as web development.



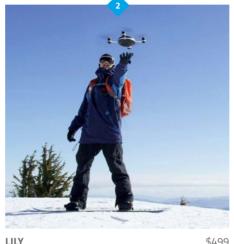
Web developer Calum (calumryan.com) works for We Create Digital. In his spare time he's working on Culturebook, a museum tour guide app

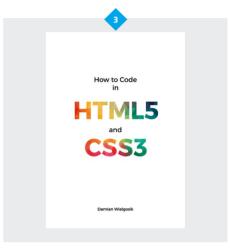


STUFF WE WANT

Small objects of web design desire: from a camera that goes where you can't to the ultimate guide to getting paid







LILY FREE \$499









What we think

- (1) Lior Frenkel one of the brains behind nuSchool brings together his experiences to help you avoid tight-fisted clients (netm.og/pay-269).
- (2) It floats, it flies and it's waterproof Lily is the new camera that allows you to capture videos and images like never before (lily.camera).
- (3) If the prospect of working with HMTL and CSS3 scares the heck out of you, this free ebook will show you the ropes (howtocodeinhtml.com).
- (4) It can be tough finding decent vector icons, but thanks to Nucleo you can browse, manage and customise 1170 great ones (nucleoapp.com).
- (5) Touching on typography, visual elements and voice, this pocket book is a handy guide to branding (netm.ag/guidelines-269). (6) Nabbing that potential client is as important as it gets, and with Beagle you can create more engaging proposals, faster than ever (getbeogle.co).



THE FREELANCE ISSUE

We weigh up the pros and cons of going it alone, and compile a ton of tips to help you on your way

PLUS

Master screen orientation with HTML5

Build animation prototypes with Framer

10 easy steps to better hybrid apps

ISSUE 270 ON SALE 9 JULY

PRINT EDITION, BACK ISSUES AND SPECIAL EDITIONS AVAILABLE AT

myfavouritemagazines.co.uk

DIGITAL EDITIONS AVAILABLE ON ITUNES, GOOGLE PLAY, KINDLE, NOOK AND ZINIO

net.creativebloq.com



FUTURE OF WEB DESIGN

Benevolent deception, designer depression and death metal: **Tom May** recounts his highlights from FOWD

* EVENT REPORT

DATE: 27-29 APRIL 2015

LOCATION: LONDON, UK

URL: futureofwebdesign.com

A web design conference that's been running for longer than most of us can remember, Future of Web Design is nothing if not slick.

Everything seems to happen effortlessly, and it has arguably the most professional atmosphere of any UK web event. Fittingly then, 2015 saw FOWD move to its most business-oriented venue yet, Etc Venues in the heart of the City of London.

Having mingled on the escalators with the pinstripes and power-dressers, attendees were treated to a full day of workshops on day one from the likes of Val Head and Steve Fisher, while day two kicked off with a terrific keynote from Stephen Hay about 'The art of deception' (slides at netm.ag/hay-269). The thrust was that "benevolent deception" in our UI designs can help guide the user to where they want to go more quickly.

Time proved to be a main theme running through the talks. David Hurley framed the issue directly: "Time is our most valuable resource. How can we make our design more time-concious?", while Media Temple's Jon Setzen looked at how we can ensure our sites offer a truly 24-hour experience.

Another theme that emerged was that of being happy in your work, with **net** awards winner Dan Edwards and Skylark's Arthur Irving investigating the "elephant in the room" of designer depression.

A wide range of views were aired at FOWD, and some speakers flatly contradicted each other. For instance, Flurin and Adrian Egger presented an impassioned plea for everyone to design in the browser, but keynote speaker Dan Mall (pictured) disagreed, instead advocating we "decide in the browser". Other high points included a succinct introduction to data visualisation from first-timer Lisa Gringl, an eye-opening look behind the Guardian website redesign by Chris Clarke, and Heydon Pickering's weirdly entertaining meditation on maths, death metal and Michael Gove.

But for many, the highlight of FOWD 2015 was a showstopping talk by CSS creator Håkon Wium Lie, who considered what the web world might have looked like without his invention. To hear more about that, check out our interview on page 32. In



Tom (@tom_may) is the content manager for net and Creative Bloq. He has over 20 years' experience as a journalist

EVENT GUIDE

RESPONSIVE DAY OUT 3: THE FINAL BREAKPOINT

DATE: 19 JUNE 2015
LOCATION: BRIGHTON, UK
Expect an enjoyable gathering
of designers and developers,
with practical and inspirational
talks from the likes of Ruth John,
Lyza Danger Gardner, Peter
Gasston and Jason Grigsby.
The day will be hosted
by Clearleft's Jeremy Keith.
responsiveconf.com

CHICAGO CAMPS DATE: 6-7 AUGUST 2015

LOCATION: CHICAGO, US
This two-day 'camp' is centred on the theme of 'prototypes, processes and play', and promises to change the way you work. Speakers include Andrea Mignolo, Denise Jacobs and Hannah Donovan.

netm.ag/chicago-269

REASONS TO BE CREATIVE

DATE: 7-9 SEPTEMBER 2015
LOCATON: BRIGHTON, UK
Promising equal parts
inspiration and insight, the
three-day Brighton outing
of John Davey's conference
will feature presentations from
Stacey Mulcahy, Shantell Martin,
Tom Vian and Yuko Shimizu,
amongst others.
reasons.to

DIGITAL DESIGN & WEB INNOVATION SUMMIT

DATE: 10-11 SEPTEMBER 2015 LOCATION: SAN FRANCISCO, CA

The conference for exploring the future of digital design and user experience. Enjoy talks from the designers behind companies like Spotify, Walt Disney, Visa and Etsy. netm.ag/innovation-269

SUBSCRIBE TO NET

GET THE NO.1 CHOICE FOR WEB DESIGNERS AND DEVELOPERS DELIVERED TO YOUR DOOR, YOUR DEVICE, OR BOTH



PRINT EDITION ONLY

Take out a print subscription to **net** and get your copy before it hits the shops. Each issue is packed with the latest web trends, technologies and techniques

FROM **£26.99**

SAVE UP TO 38%

BASED ON A 6-MONTH SUBSCRIPTION



DIGITAL EDITION ONLY

Take out a digital subscription to **net** for on-the-go access to our fully interactive edition, with streaming screencasts, extra images and more

FROM **£19.99**

SAVE UP TO 45%

BASED ON A 6-MONTH SUBSCRIPTION

Terms & conditions: Prices and savings quoted are compared to buying full priced UK print and digital issues. You will receive 13 issues in a year. If you are dissatisfied in any way you can write to us or call us to cancel your subscription at any time and we will refund you for all un-mailed issues. Prices correct at point of print and subject to change. For full terms and conditions please visit: myfavm.ag/magterms. Offer ends 31 July 2015.



NEW PRINT & DIGITAL EDITION

Enjoy a combined print and digital subscription, and take advantage of print as well as exploring the fully interactive digital experience

GREAT REASONS TO SUBSCRIBE

- Print edition delivered to your door
- 13 issues in a one-year subscription
- iPad and iPhone edition download
- Android edition download
- Money-back guarantee

FROM £32.49



TWO SIMPLE WAYS TO SUBSCRIBE

ONLINE: myfavouritemagazines.co.uk/NETSUBS

PHONE: 0844 848 2852 AND QUOTE CODE:

PRINT15, DIGITAL15 OR BUNDLE15

Opinions, thoughts & advice



GUILTY BY ASSOCIATION

28

Design has the power to change the world. **Lauren Currie** urges designers to start using their creative talents more responsibly



INTERVIEW

32

Opera's **Håkon Wium Lie** talks about how he saved the web with CSS, and why commercial monopoly is the biggest threat to the industry



0&4

40

Pinterest's head of product design, **Bob Baxley**, shares insights from his time at Apple and gives his take on web design fundamentals

★ DEVICES

MULTI-DEVICE INTERACTIONS

Your phone can be a camera. It can also be a compass, or a satnav. Or it can just be a phone. **Ben Foxall** explores devices in the modern age

When camera phones first appeared, I didn't want one. I liked having a camera and a phone – but to mix the two seemed to the detriment of both (rubbish picture quality and rubbish–er battery life). Camera phones are pretty common now and have subsumed even more things: portable music players, satnavs, pagers, calculators, camcorders, pagers and alarm clocks to name a few.

With all our old devices being rolled into one, something interesting has happened: we're using a bunch of new ones. We now communicate with the rest of the world (my original reason for having a phone) through more devices than ever before. As well as phones, we use laptops, tablets, TVs and watches to interact with other people.

What gives me comfort is that apps and web content have replaced our physical objects. When I visit a web page that has a

Opinior

timer, my device becomes a stopwatch. When I open a page that can record audio, I'm now holding a dictaphone. I've got my camera back ... it just looks like my phone.

VIRTUAL OBJECTS

As well as the physical form, these objects have something different - they're able to communicate with each other. Your compass can tell your map which way to point. Your watch can tell your calendar that your meeting is about to start.

Our objects have become virtual, and can be moved between devices. You can write a shopping list on your laptop and cross off the items on your phone. You can even interact with the same object from two devices at the same time (we'll get to that later).

The web is a perfect platform for our world of many objects. It's fundamentally geared towards sharing content between and across devices, which allows us to think on a higher level about the object we are interacting with, and not be tied down to thinking of it as a single device.

Frontend web technologies are pretty great for this too. Responsive web design and media queries enable us to adapt our content to suit a particular device. It's more than just making things fit; we can make our content more appropriate for people browsing on a particular device. Using browser APIs, we can also detect and make use of a device's unique capabilities.

RULES OF INTERACTION

When someone visits a website, they might switch devices during their interaction. In fact, it's kind of awesome when they do. A user might visit an online shop on their phone, find an item they like, and come back on a desktop computer to complete the purchase. In that scenario, we've supported the casual browsing when the user is on the move, and allowed them to do the more time-consuming interaction when they've sat down properly. Go us.

From a practical point of view, you can help users transition between devices by allowing more, smaller interactions with your site and avoiding too much information being tied to a particular device. Users should be able to pick up where they left off (hint: URLs are pretty handy for this).



Our objects have become virtual, and can be moved between devices. You can write a shopping list on your laptop and cross off the items on your phone

Functionality doesn't have to be entirely consistent across devices either. A user can't reorder Spotify playlists with the mobile app, which is totally fine - they can switch to a desktop machine and do it there. We should keep in mind what goal a user is trying to achieve when they use a particular device, and work out from there how we can best support that.

Another awesome thing that can happen is that several devices can be part of the same interaction at the same time. When someone visits youtube.com/tv their browser changes mode; it becomes a TV (it could actually already be a TV, but that's a different matter). On a second device they can visit youtube. com/pair, and now that becomes a remote control. In this scenario the user can take advantage of the properties of each device. The 'TV' might have a big screen but be awkward for finding videos, and the 'remote' might be relatively small but be more effective at searching for content. By sharing the interaction across both devices we've overcome the limitations of each.

This is becoming all the more relevant with the ever-increasing number of web-enabled devices that we interact with today. There's great potential for utilising the physical properties of our multiple devices by considering their part in our broader interaction with the world. Having said that, I'm still a little tempted to switch back to film. n

Ben (@benjaminbenben) leads the frontend team at White October. He loves the web and feels weirdly comfortable showing live demos







DESIGNERS: GUILTY BY ASSOCIATION

Illustration by Ben Mounsey

It's time to use your creative talents responsibly. Lauren Currie explores how to design to make the world a better place

Every so often, someone - usually a taxi driver asks me what I do for a living. My answer tends to elicit reactions ranging from suspicious snorts and expletives to utter confusion. I'm a designer. Therefore I am guilty by association.

Designers are known for our stylistic gestures and our whimsical and indulgent ideas, often created whilst wearing black polo necks. People I meet think I design shoes for a living. Many designers do. Some build apps to help us find pizza faster and some make sexy products that help us wake up on time. We can all do better.

I'm one of many designers trying to reformulate the role design can play in the world. I'm part of a new genre of social designers who are applying the design process outside its conventional context. From using design as a medium of intellectual inquiry, to devising ingenious solutions to acute social problems like homelessness, unemployment and obesity.

My belief that design can bring value to our world has always manifested itself in a resolute commitment to Scotland. Six years ago, Sarah Drummond and I founded Snook, a Glasgow-based social design agency, and MyPolice.org, a platform to make it easy for citizens to talk to the police. We've worked with problem drinkers, people caring for relatives with dementia, unemployed young people and drug addicts, entrepreneurs, chief executives and beyond.

We've taken these stories and turned them into opportunities, improving current services and developing new ones to help our clients change Scotland for the better. Whether that's redesigning the Care Information landscape in Scotland or improving the journey young people go on when they leave school.

MEANINGFUL CREATIVITY

Yet I still feel guilty by association. Things aren't good enough. The consequences of bad design are complex, lasting and often harmful. Today I calculated my iCloud password request has been interrupting me for 3,264 hours. I jest (although if someone could please re-design that system I'd be eternally grateful).

More importantly, who is designing end-of-life care? Is it giving the UK's 10 million older people the experience they deserve? Who is designing education? Is it equipping our 600 million youngsters who will compete for 200 million jobs in next decade, with the skills and talents they need? No.

More than 100 homeless people are living in the terminals of Heathrow airport - a new and shameful record. Experts have warned that homelessness in London is rising significantly faster than the national average. And yet we don't see as many people sleeping rough as we used to. Have our cities become better at hiding poverty, or have we become more adept at not seeing it?

I'd argue designers, architects, town planners et al are guilty. A design team created 'anti-homeless' spikes and installed them around the perimeter of Selfridges in Manchester. These were specifically designed to prevent



homeless people sleeping on the streets. This is not OK. When you are designed against, you know it.

It's our personal responsibility to use our creativity in a meaningful way. The role of a designer is changing. We could argue we are headed towards the most radical period of change in design history. Design has become a 'game changer' in Silicon Valley, according to a report by former Rhode Island School of Design president John Maeda (netm.ag/maeda-268), who says that designers are becoming essential to the success of tech companies. There is also a surge in designers as entrepreneurs, researchers and coders.

Designers who are thriving in these roles and creating new identities for designers give me hope. Vincenzo Di Maria, trained in industrial design, is now working to implement social innovation through entrepreneurship. Dr Valerie Carr has a PhD in healthcare service design and is exploring how design approaches can help create better health systems. Cassie Robinson, trained in fashion design and psychology, is taking the work of social designers to the general public through initiatives

back from Scotland and my business to move to Hyper Island (*hyperisland.com*) in Manchester. Hyper Island is a world-leading creative business school.

I'm designing and launching a new MA in digital experience design, working with leading practitioners from agencies such as IDEO, ustwo and Method to build content that pushes boundaries and reflects the industry. My students will work on live briefs from clients like FutureEverything, the BBC, the NHS and Future Cities Catapult.

FINDING YOUR VOICE

But what about those of you who aren't studying? Where does your learning journey fit into all of this? Well, the time is now. You are guilty by association and only you can change that. Think about what's missing from your education and give thought to what you are learning and what you are teaching.

So what will you do? First off, remember you can't be what you can't see – I cannot aspire to be you, nor be inspired by you, if I can't see you. The most amazing

It's our personal responsibility to use our creativity in a meaningful way. The role of a designer is changing. We could argue we are headed to the most radical period of change in design history

such as The Civic Shop. They inspire others and encourage young designers who want to address political and humanitarian concerns in their work.

DESIGNING DESIGNERS

With many young designers avidly signing up for newly created courses on experience design, social and humanitarian design, it looks like more design activists will emerge in the future. This is good news. Or is it? A big part of the problem, many design practitioners claim, is education. There is a huge gap between what schools teach and what designers need to know to be able to design in a way that adds value to the world.

I've been asking my industry friends what's missing from education, and their answers are unsurprising. "A way for students to crowd source the leaders they want to teach or mentor them," says Tamsin Smith, who works at FCV Interactive. LiveWork's Alex Nisbett suggests "safe places to practice feedback", and Equator founder James Jefferson simply wants "agility".

So how do we design designers? More often than not, design is being taught as part of an archaic, 14th century system that was designed to produce academics, not craftspeople. It was this question that drove me to step

projects and people in the world are fairly useless if they are kept behind closed doors. Somebody somewhere wants to be you. It's your job to make yourself findable.

Secondly, write. No excuses. Creatives don't write? Rubbish. Yes we do. The design section of mainstream newspapers is still full of furniture and iPhones. We need to tell compelling stories about why, what and how we design. The only way to find your voice is to use it. Talk about the things you love. Your voice will follow.

Third, heed the rule: less lattes, more magic. You carry a connection machine in your pocket. I'm bored of people sharing sunsets and lattes. Show your process, your ideas and your mistakes. Show the world how you think.

Design, for all of us, is permission to stand up and say: "I believe this can be better. Now, I'm going to figure out how." Join in the conversation by tweeting the one action you will take to start changing what it means to be a designer #nolongerGBA #changeyourtomorrow.



Lauren (@redjotter) is the co-founder of Snook, Scotland's leading service design and social innovation agency, and leads Hyper Island's Digital Experience Design MA Architecture Communication Automotive Configuration
Costume Engineering Systems Environmental Event
Fashion Floral Video Game Graphic Informational
Instructional Interaction Interior Landscape Lighting
Product Process Software Sound Stage Urban UX Visual
Web Architecture Communication Automotive
Configuration Costume Engineering Environmental
Event Fashion Floral Interaction Video Game Graphic
Visual Informational Instructional Interaction Interior
Landscape Lighting Product Process Software Sound
Stage Systems Urban UX Visual Architecture
Environmental Communication Web Automotive
Configuration Costume Engineering Event Floral Video
Game Graphic Informational Instructional Interior
Landscape Lighting Product Process Software Sound
Stage Systems Urban UX Visual Web



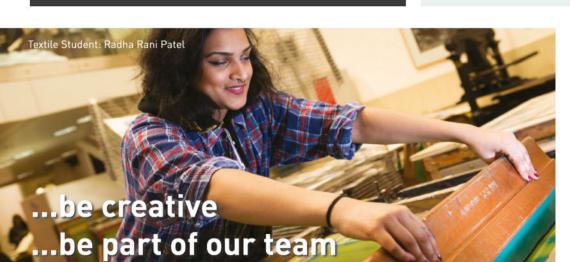
Get your .design domain today

www.blacknight.com



Rackspace from £35/pm

netcetera netcetera.co.uk/net





® **1** 0800 808 5450

The Marketing and Communications Department is looking to recruit a Digital Designer.

- Coding
- ✓ CSS
- Design
- **✓** HTML
- ✓ Adobe Creative Suite

Digital Designer

£ 26,659 - £ 29,429 per annum

Your Role

You must be focussed on digital design, with a creative eye. You'll have proven technical experience with the latest Adobe Creative Suite and know how to design for different platforms and channels. You must have vast experience of working with CSS and HTML and you should be able to write html code from scratch. Java/JQuery or any animation skills would be an advantage. You will also need to be interested in new technologies.

Based at the City Centre Campus and part of the Web Team, it is essential that you have the ability to be flexible, prioritise work and operate under pressure.

About Us

Birmingham City University combines innovative teaching and learning, sector-leading student support and effective partnerships with leading employers. We are investing £260 million in new facilities and nine in 10 of our graduates are in work or further study within six months. [DHLE 2013]





To Apply

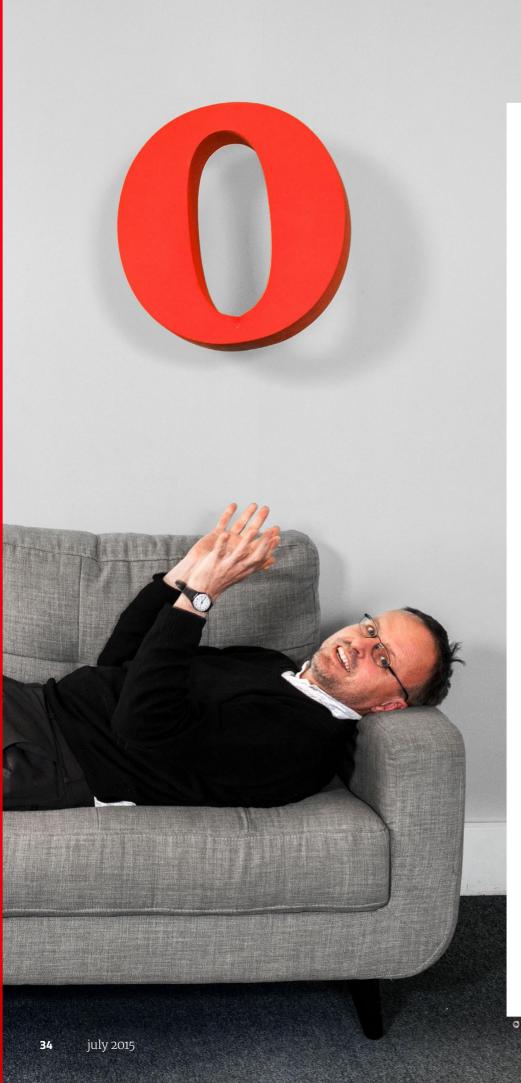
To apply please visit our website at jobs.bcu.ac.uk

Quoting reference: 042015-140

Closing date: 30 June 2015 Tel: 0121 331 6693







When it comes to web design, few people have been more important or influential than Håkon Wium Lie. Working at CERN alongside Tim Berners-Lee, the creator of the web itself, Lie is the man who gave it its familiar look by inventing CSS.

Without that bold move, the whole business of web design could have been a totally different beast today. As Lie puts it: "This thing could have been owned by one company. It could have been France Telecom, it could have been Microsoft. It could have been one private owner.

"Instead we have a web which is slightly disorganised, and there's a lot of rubbish out there, but it's also a wonderful place that reflects humanity as it should be. And it's free for everyone to use."

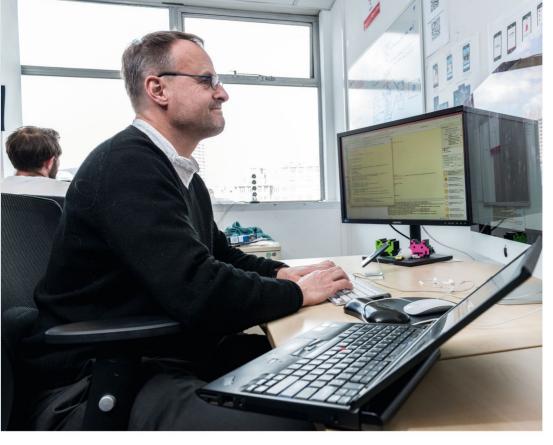
WHAT COULD HAVE BEEN

So how did it all come about? For those too young to remember, here's a quick refresher. First came HTML, which was created by Tim Berners-Lee in late 1990. HTML was very simple. It didn't say anything about the presentation, it was all about semantics. "We could present HTML on a screen or in a speech synthesiser, in many different ways," says Lie. "It wasn't tied to a PC screen or a phone screen, it was universal."

HTML was used to write web pages for the first browser, Mosaic, released in 1993. "That attracted other people, including designers. And they said: 'OK this is pretty good but the font is terrible, and I don't like the grey background, and I want 20 point Helvetica, red ...' But they couldn't get that, because HTML only gave them the meaning of the elements, not the presentation."

If the web was to succeed in the wider world, Lie realised, designers would need a bridge between those two worlds. "We wanted people to use HTML. But we also wanted people to say something about font size, colours, typography, layout, margins and shadows and such. Because otherwise they wouldn't have used HTML."

If CSS hadn't been developed, designers might have gone elsewhere, explains Lie. HTML could have turned into more of a page description language, akin to PDF. Indeed, designers had already started making pictures out of their documents. "Because that meant you could control every pixel in there. So you could get the fonts, colours,





you needed. You still see some of them around. If that had become the norm, we could have ended up with the web being a giant fax machine."

Lie knew that to keep HTML as the standard, someone would need to establish another route to the design choices they craved. "So the primary reason for doing CSS wasn't really to do cool presentation – it was to save HTML," he explains. "We wanted to make sure we had a text-based, semantic-based language underneath there."

Lie felt a real sense of personal urgency. "It was like: 'Darn, we need something quick,

"If we hadn't

developed CSS, we

could have ended

up with the web

being a giant

fax machine"

otherwise they're going to destroy the HTML language." He wrote the first CSS specification in a week or two.

FUTURE-PROOF

He wasn't alone in his mission, of course. Lie discussed the idea with Berners-Lee – although

his busy schedule meant he didn't get involved in the technical work. "There was a very active mailing list, and other people had also proposed similar concepts in the past, so I tried to borrow from others as well."

Lie developed CSS into a W3C Recommendation with computer scientist Bert Bos, and as a showcase and testbed, integrated it into the Arena web browser. He clearly did a

good job. CSS continues to give visual form to the majority of websites today, and even works on a multitude of devices that have been invented since.

That's partly because those early pioneers had enough foresight to build in a certain amount of future-proofing. "We didn't have all those mobile phones at the time. But we did consider that maybe in the future we'd be able to do this on other devices than PCs."

The initial proposal is very conscious about employing properties that work on screens and on speech synthesisers, for example. "Something about the volume and the

> personality of the voice that reads to you, those were parts of the initial proposal. We kind of saw a world coming but we didn't know exactly what it would look like."

> It helped that they had such a diverse set of machines at CERN. "Tim was using a Next com-

puter, I used a Sun computer, Robert [Cailliau] used a Mac. So that also told us that we needed to make sure we could get the web to work all over."

SAVING THE WEB

Lie left CERN in 1995 to begin a four-year stint at the W₃C, before moving to Opera Software. But despite many years fighting to improve the web, if you ask him if it's still in need of saving, he's adamant: "Yes! Constantly! It's a constant job! It's not like the web has been done. This is history in the making. The web is only 25 years old. It's going to be around for a long time, so there are lots of things to develop."

New threats to the web, he believes, come from commercial technologies, such as the rise of iPhone apps, which allow you to do things you can't do with HTML and CSS. But the good news is that the web standards community has continually fought back against such commercial encroachments.

"For years, iPhone apps had access to the camera, and web apps didn't," he says. "Now we have access to the camera, the location, the accelerometer. So now you can technically write most of the apps out there with HTML. One of the things we're missing is the page orientation. We need to do those compelling visual presentations that they can do in apps, make sure we can do the same in HTML and CSS."

If CSS does survive, it's clear to Lie that it will continue to change as designers demand new tools. The exact nature of those changes remains to be seen, but Lie is keen that they appear more in CSS than in HTML.

"I think of HTML more as a sort of stable resource for humanity," he explains. "For instance, the markup of Wikipedia shouldn't change. We should update the articles, the content, and we should update the



presentation. But the markup is fine, it can live for a long time."

There's also, of course, the danger of CSS becoming bloated. "Already, we've seen some pushback against adding new features from the people who have to make sure this works on very basic hardware," he admits. "In the emerging markets, Android phones are quite minimal. Can we make sure that the browsers run on those? For example, Facebook has re-implemented CSS in JavaScript because it thinks native clients and browsers have taken on too much functionality. "That's a balance one needs to make," says Lie.

Right now, he believes there are too many modules in CSS, although he emphasises that many of them will die because they will fail to attract attention from browser implementors, or due to a general lack of interest.

"Often it's in the communities surrounding the rendering engines like Blink and WebKit that these decisions are being made. It's not so much in the standards committees any more. Because unless you can implement it and get it into Blink or WebKit, it's not really going to be part of the web."

LESS IS MORE

And what of Sass and Less? "I think they make sense," Lie says. "Actually, if we'd seen

that going back, maybe we should have put some of that functionality in CSS. It certainly makes sense syntactically to have some of those features. And it could have been done ... they're quite elegant and it could have been done declaratively."

However, Lie is sharply critical of Adobe's proposals for CSS Regions [read his detailed views here: netm.ag/regions-269], and is unconvinced by authoring tools in general.

"When I write my CSS I write it in a text editor, I don't use a WYSIWYG tool," he says. "That world doesn't really mesh well with the web design world. If you have a WYSIWYG tool you need to have screens of all sizes being simulated. And maybe that's possi-

ble, maybe some people still do it like that, but it's not something that works for me."

PASSING THE BATON

In short, rather than the web being 'finished', the work has barely begun. "Billions of people are still not on the web," Lie points out. "There are challenges like providing fonts for all these languages. That's

a big job to do. And then, you know, designers will have new requests. We'll have people coming in and saying: 'You should do it this way' or that way.

Lie himself, however, will be taking less of a lead – over the next 20 years he plans to take a step back. Although he will be keeping a close eye on what goes on, and he's hoping that the next generation will continue to work on CSS. "I don't want people saying:

"Let's throw out HTML and get some new platform'," he asserts. "Especially if it comes from a commercial company. That's the worst thing that can happen, if we end up in a monopoly situation.

"We almost had that in the days when Internet

Explorer was the dominant browser, and it didn't work with web standards and Microsoft didn't fix bugs, and everything started moving at a glacial pace. And it could happen again. Apple and Google are very strong now. Thank goodness there are two of them!"

"If we'd seen

Sass going back,

maybe we should

have put some of

that functionality

in CSS"

Next month: Cotton Bureau and Full Stop co-founder Jay Fanelli



VOTING IS NOW OPEN!

Join us for the 16th annual **net** awards Spare a few moments to vote for your favourites today

Game Changer of the Year
Best New Web Technology
Open Source Project of the Year
App of the Year
Best Online Portfolio
Side Project of the Year
Best Collaborative Project
Redesign of the Year
Podcast of the Year
Conference Talk of the Year

Grassroots Event of the Year
Emerging Talent of the Year
Young Developer of the Year
Young Designer of the Year
Developer of the Year
Designer of the Year
Outstanding Contribution
Team of the Year
New Agency of the Year
Agency of the Year



"There is something to be said about the recognition of your peers. People who understand the craft. I don't mind saying I cried a little when I won that award."

Mike Monteiro, Conference Talk of the Year 2014

thenetawards.com

Public voting closes 13 July 2015



* USER RESEARCH

HOW DO YOU TACKLE USER RESEARCH AND TESTING?

From approaching it like a science to shunning it altogether, designers have different approaches to user research. We asked six pros what they thought



ERIKA HALL Co-founder, Mule Design Studio muledesign.com

We always start with the goals of the project and of our client's business in general – this allows us to identify the most relevant research questions and focus our efforts. Then we work as collaboratively as possible so everyone working on the project has a hand in generating the insights. It's easy to focus on specific methods and tools and forget why you're doing the research in the first place. Always referring to the higher goals keeps the mind sharp, so you don't just fall into habits.



EMMA BOULTON Research director, Monotype monotype.com

Some people think of research as a scientific discipline, and see it as testing a hypothesis, uncovering the scientific truth or finding evidence. It can be all of those things, but I believe research is simply about seeking information and piecing it together in a coherent narrative. It's about telling a story so that it provides insights and a clear path to take.



CHUI CHUI TAN User experience director, expartners internationaluserresearch.com

The terms 'user research' and 'user testing' are often used interchangeably, but they have different meanings and objectives. Both are about getting insights from people who are using, or are likely to use, a product. However, there's a slight distinction. Usability testing is about identifying issues users might experience with a product, either via the product itself or a prototype. User research is about focusing on understanding users' behaviours, needs, expectations and pain points. You don't necessarily need material to test on. This means the approach you use and questions you ask should be different for each. Choose the right approach and questions so you can get the best from your users.



ADRIAN HOWARD Co-founder, Ouietstars quietstars.com

My mantra is 'Do less more often together to do more'. 'Do less' because the point is not research for the sake of it, but to help us deliver the right products and services at the right time. 'More often' because ongoing research helps us discover and refine markets and customer needs. Ongoing testing helps us ensure our products meet those needs. 'Together' because the simplest way to make sure everybody understands the research is for everybody to be involved in doing the work and owning the results.



ROBERT HOEKMAN JR UX designer and author rhjr.net

When you research users and usage, always remember: there is more truth in data than in conversation, and more understanding yet in observation. Listen to what they say, then ignore it and watch the stats to see what they do. Then ignore both and watch them in person to find the truth. When drawing up a new design, try iterative usability testing. Leave time between sessions to revise, then show the new version to the next tester. Don't change everything. Use good judgment. Do this well and the problems you hear about in the morning will be gone by the afternoon.



IRENE PEREYRA UX designer, Anton & Irene antonandirene.com

We never do any user research. Testing your own work is a bit like grading your own homework and a lot of user research is conducted like a pseudo-science. I've been in one too many subjective testing environments that would surely make real scientists scream in horror. If our clients want user research we quote Dieter Rams, who when asked about doing consumer research during his time at Braun simply said, "Never. We wanted to change the world."



STEVE PORTIGAL Principal, Portigal Consulting portigal.com

肩 I go to where people are doing their thing and engage them in a direct but open-ended conversation about what they're doing now and what they'd like to be doing. Most importantly, I listen for 'why'. If you seek to understand usage without uncovering meaning, you leave so much insight on the cutting-room floor. I use insights as seeds for the extended team to gather, and think divergently and how we might respond to what we've learned. Research always feeds action.

RESOURCES

VISUAL CONSISTENCY

Web UI Design for the Human Eye is a brilliant free ebook written by the guys at UXPin and packed full of useful advice (netm.ag/ebook-269). There's a chapter exploring different techniques you can use to nail down your potential users' expectations before you start designing.

BEHIND THE SCENES

If you've ever wanted to swat up on the user testing experience of app developers, take a look at this blog post from Soundwave's head of design Reiner Wendland (netm.ag/ wendland-269). Exploring previous tests, objectives and original online tools, it's a great example of how user testing can be done.

GET GOING

If you're unsure where to start with user research, this handy list of tips and tricks (netm.ag/reichelt-269) will get you going. Collated by head of user research at the Government Digital Service Leisa Reichelt, this collection of essays, ebooks and podcasts will point you in the right direction.





BOB BAXLEY

The head of product design at Pinterest shares his insights after 25 years in the business

INFO

Job: Head of product design, Pinterest
w: baxleydesign.com
t: @bbaxley

net: How do you tackle product design at Pinterest? BB: Currently I'm responsible for three distinct design teams. One is focused on growing our user base, another on our monetisation efforts, and a third on the core product itself. Each team is dedicated to a different audience: non-pinners, partners and pinners. The growth team is heavily driven by iteration and metrics; the monetisation team relies on traditional user-centred design techniques; and finally the core product team innovates based on their own judgement about what the product can and should be.

net: What kind of research do you do?

BB: We have an amazing research team that conducts a broad variety of ethnographic research, usability studies, focus groups, survey studies and other types of research. There's also a science team that helps us understand how our users are reacting to various features and changes through their behaviour on the site itself.

net: Previously you held senior leadership roles at Apple. How does the job at Pinterest differ? BB: It's perhaps a bit larger in scale. Perhaps occupying a bit more of an uncertain space.

Apple and Pinterest may seem like very different companies with very different cultures, but at the core they share the same values: a relentless focus on craft, an unshakable respect for the time and attention of users, and a belief that what we're doing is going to have a transformative effect on the lives of individual people.

net: What was it like working with Steve Jobs? BB: There is really nothing to distinguish him other than the power of his imagination; it allowed him to see opportunity through the forest of constraints and compromises that blinded others from the possibilities. Working in a company led for a time by Steve Jobs was the greatest creative challenge of my life. Challenging because the only measure of success was to constantly mine your imagination and to ceaselessly set out to produce the best work you possibly could.

net: How did you work your way up to where you are today?

BB: Honestly, I was just lucky to have been born in 1963 and to have somehow been invited into the profession in 1990 before it really got started. In addition, I'm fortunate to have a brain and a cognitive style that seems uniquely suited to thinking about systems in general, and about software design in particular. Other than that, it's mostly been about persistence, loving the work, and staying in the game.

net: Your book *Making the Web Work* came out over 10 years ago. What's it like looking back on it now? Do you think the web industry has changed?

BB: There's a lot about my book that still holds up surprisingly well because it deals with large-scale models and strategies about software design, and that stuff really hasn't changed. What's different is the tactics and the medium itself. At some fundamental level, web design isn't any further removed from mobile design than Shakespeare is from Pixar. It's still about telling a good story and leaving the audience in better shape than when you found them.

net: You must be incredibly busy – how do you go about prioritising your workflow?

BB: I committed myself years ago to the principal that people come first, then process. If you get those two right, the product will generally take care of itself, if you keep paying attention. That guiding philosophy – people, process, product – is what governs my time and sets my priorities both at a macro and micro scale.



This practical guide to web design shows you how to build better sites the easy way. We'll guide you though the process from start to finish – from prototyping approaches to mobile techniques and SEO. Plus, the FREE DVD comes packed with 3.5 hours of video tutorials to help you master top tools including Photoshop, Sketch and Pixate, in no time.

Sharpen your skills now!

Available at all good newsagents, and online at netm.aq/practicalwebdesiqn-268

NEVER MISS AN ISSUE!



#268 JULY 2015

We run down the 10 top tools you need to build awesome responsive sites, and introduce the Genesis Framework

SEE PAGE 24



#267 JUNE 2015

Discover how to plan, build and maintain WordPress themes, and manage large CSS projects with ITCSS



#262 JAN 2015

We reveal everything you need to know to build your first mobile app, and uncover the power of SVGs

GOT AN APPLE DEVICE?

Download net's interactive iPad edition, or read a print replica on your iPhone or iPod Touch

NETM.AG/NET-IPAD (UK), NETM.AG/NET-IPAD-US (US) Approxime



CATCH UP ON ANY ISSUES YOU'VE MISSED BY DOWNLOADING OUR DIGITAL EDITIONS



#266 MAY 2015

What should you charge? How do you ensure you're paid on time? Discover this and more in our special money issue



#265 APRIL 2015

Val Head shares her secrets for amazing interface animations, and we reveal how to switch from CSS to Sass in WordPress



#264 MAR 2015

We present the techniques you need to build your best ever site. Plus, a look at the top 20 emerging design trends



#263 FEB 2015

Discover the design tools set to revolutionise your workflow this year. Plus, we look at how to boost site speed



#261 DEC 2014

Get the low-down on the top JavaScript libraries. Plus, find out how to build a modular CMS in WordPress



#260 NOV 2014

Explore the advanced techniques that will help you build responsive sites that work seamlessly on any device



#259 OCT 2014

Find out how to build native apps with Steroids, and explore the exciting new features in WordPress 4.0



#258 SEPT 2014

We share the SEO tips that will propel your sites to the top of Google, and show you how to mock-up a site with Sketch 3

PREFER TO READ ON ANDROID, PC OR MAC?

net is also available on Google Play and Zinio, as well as Kindle, Nook, Windows 8 and more

NETM.AG/NET-GOOGLEPLAY GET THE MAGAZINE ON GOOGLE PLAY



NETM.AG/NET-ZINIO



Sensational design and superb development

CASSIE MCDANIEL



Cassie is design director at the Mozilla Foundation. She founded interview series Women && Tech, and creative lecture series Paris Lectures

w: cassiemcdaniel.com

t: @cassiemc

H

WHO IS JIMMY CHIN?

Jimmy Chin is a world-class adventurer and award-winning photographer. He combines these skills to share extraordinary adventures through images: his work has appeared on the cover of National Geographic; he made the first ascent of the notorious Shark's Fin on Meru; and he's skied down from the summit of Mt. Everest. Frankly, he's one of the most interesting people we've ever met.

But we like Jimmy not because of his accolades. He's also thoughtful and considerate, the sort of down-to-earth family guy you would want to share a beer with.



THE RAZORS

THE TRIP

WHAT WE MADE

WHEN HARRY'S MET JIMMY

WHO IS JIMMY CHIN?

SHOP THE SE

★HTML5, CSS3, JAVASCRIPT

HARRYS.COM/JIMMY-CHIN

Harry's harrys.com

Harry's Jimmy Chin experience is a collaboration between razor brand Harry's and professional climber and photographer Jimmy Chin. It embraces the modern trend of long scrolling pages but literally flips the interaction on its head; instead of scrolling down, users scroll up, joining Chin as he scales a mountain. The idea subverts users' expectations, but in a way that is conceptually relevant.

Harry's' priority is to tell a story. Starry skies, web-optimised paragraphs of text, and perfectly timed CSS animations pull you deeper into the origins of the product. The collaboration, the site explains, is born out of the friendship between Chin and one of Harry's' co-founders.

The text reads, "We like Jimmy not because of his accolades. He's ... the sort of down-to-earth family guy you would want to share a beer with." While this execution could have easily come across as trite, the relaxed copywriting and humanising photos and videos make you feel as if you are embarking on a journey together. Not bad for a razor site.





New Adventures. Next Chapters.

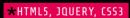
Hillary Clinton is running for president. Watch the video. Share it with your friends. Let's go.











HILLARYCLINTON.COM

Hillary Clinton's presidential candidacy rouses many feelings, but perhaps none so strong as those of designers considering her logo, and its custom 'Hillary Bold' typeface. While the creators of the site were unreachable for comment, Clinton's entire digital presence is worthy of inspection.

From the way that Hillary Bold is applied effortlessly in different contexts, to how consistently open, friendly and - well - blue, the rest of her site is, it's clear Clinton possesses the digital savviness one might expect of a career politician. Each piece of real estate is carefully chosen, the content works well on any device, and the calls to action are clear and effective.

Clinton's site demonstrates what seems to be an intentional versatility. For example, the logo mark adapts to support LGBTQ causes by sporting rainbow stripes, and the entertaining 404 page embraces the unpredictable quirkiness of the web (hillaryclinton.com/404).

Those of us who build the web discuss our work in terms of goals. Through the lens of politics the question becomes: can a great digital presence win an election? Politicians might be the first among us to understand how losing one visitor could cost them an election, so while they may not be taking huge risks in digital, it is interesting to see campaign sites getting the basics right.

"I enjoy beltway politics much Īike someone might enjoy watching boxing, and of the major bids, [Hillary's] site loads the fastest and interacts the fastest" SHARLENE KING (@TYPODACTYL)



★ WEBGL, HTML5, THREE.JS

A-WAY-TO-GO.COM

AATOAA aatoaa.com

So much of the modern web seems to be built by entrepreneurs that a piece of art is a rare and important find. So it was that I stumbled across A Way to Go, a project by collaborative studio AATOAA. Described by its creators as 'a walk in the woods', the 360-degree video reveals a concept much more complex and versatile.

Visitors adopt a third-person viewpoint while travelling – walking, running or sometimes flying - through a three-dimensional landscape of forest, hills, fields and luminescent skies. There are no words, only ambient sounds, colours and occasional movements instigated by arrow keys as the character traverses different scenes.

Although the site only works in Chrome, this can be forgiven for its brave foray into poetry. The gameplay dances between emotions: curiosity, relentless and unattainable pursuit, regret and acceptance. It houses a light spirit of discovery as well as darker pondering of the afterlife.

I asked project director Vincent Morisset, who heads up AATOAA, how he felt piecing it together. "Excitement, doubt, doubt again, excitement, doubt, joy," he says. "It's a project in which you project your own emotions. For the last decade, interactivity has been mainly used to sell products or promote other mediums. It's such a fantastic way of connecting with people. We've just scratched the surface."

"There are lots of complicated things going on behind the scenes, but the experience is the focus" VAL HEAD (@VLH)







***** HTML5, JQUERY, CSS3

CREANET.ES

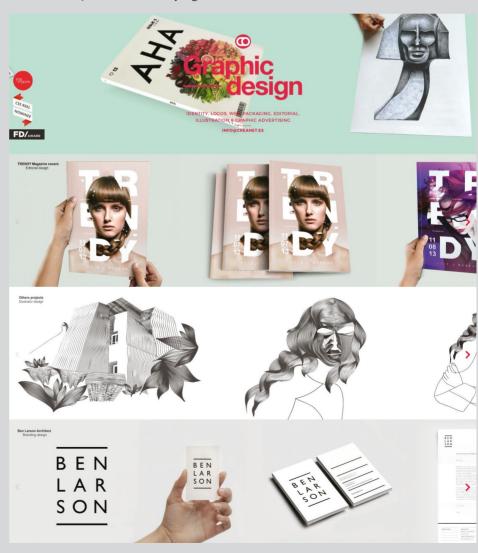
There is something about Creanet's site that is poetically discordant, like mismatched socks on a teacher who dares to do things a little differently. The banner slowly animates from left to right without easing and without interaction. The site's content is divided into sections that scroll along the horizontal axis, stopping abruptly at their ends, with few images optimised for Retina displays.

Still, the design hosts a fresh colour palette and a sophisticated grid the likes of which many designers are yet to master. And while less fluid for mouse-users, the site is satisfying to

the touch on phone or tablet, and has a somewhat accommodating click, grab and slide action on desktop.

"The website is a way to quickly and visually show Creanet's portfolio," says Jose Moreno, the CEO, founder and creative director of the Malaga-based design agency.

That it does. While there are clearly some inter-device complexities that need addressing, this feels like a solid foundation to build upon, and one that at least looks different from the overwhelming number of sandwich sites and templated portfolios that we see elsewhere.





★ GREENSOCK, CSS3, HTML5

HELLOTHIERRY.COM

Thierry Ambraisse hellothierry.com

The photography portfolio site of French designer and art director Thierry Ambraisse is a black-and-white compendium of slow fades, subtle transitions and effortless interaction design. As you explore the site, it is the format you notice first: the centred content, inset photographs, blurred images previewing what content will appear next.

The level of detail is exceptional, from the progress bar that fills up over the type, to the 'little big detail' of a horizontal black scrollbar at the top of the page that advances as you scroll, subtly indicating how much of the photo set you have left to explore. Similarly, the interactive experience strikes a rare balance – carrying the content and even adding to it, but also giving it room to shine on its own.

Once you are fully immersed in the experience, the photos are as incredible as their container. They are also easy to explore; the site utilises GreenSock, the popular animation library written by Jack Doyle (and is still maintained by him and 'geek ambassador' Carl Shoof). The library's reputation for fast performance holds true for Ambraisse's site, which the detail-oriented among us could explore for hours.

"This site feels delightful. The street photography, with it's voyeuristic quality, is really fun to explore in this format" BEHROUZ HARIRI (@_BEHROUZ)

THIERRY AMBRAISSE

Distinguished Snack Enthusiast'



Volume 2 Issue 1

Snack /snak/ n: a small amount of food between meals

Matt Stevens

HELLOMATTSTEVENS.COM

You're standing outside a 7-11 when the aliens land. They can only survive on Earth for 2 minutes and you only have 2 dollars. What snack do you buy to teach them abou humanity and provide sustenance for their long journey home?

and are a bit nuts, but inside, we are soft and sweet...wait. Do these aliens eat people? Maybe a bad idea

You've been counting for months and finally your baby daughter has enough teeth to chew a chip. Which chip do you choose to start her human snacking experience?

You're a rebel and you've just won the war together as a free people?

You're 10 years old and you mom has asked you to clean your room one too many times so you're running away. There's enough change in your piggy bank and enough space in your bindle to bring one snack into your new life. What do you buy down at the

Plus. after a few minutes of sucking, the rous, after a few minutes of sucking, the point created renders it a deadly veapon...perfect tool for protection as my lew life as a hobo.



*HTML5, WORDPRESS, JQUERY

SNACKSQUARTERLY.COM

Alexander Barrett alexanderbarrett.com, Brad Simon bradsimonart.com

When I discovered Snacks Quarterly I loved it immediately. Unabashedly frivolous, but possessing a clearly considered stash of great content, each issue hosts short interviews with compelling questions and illustrations from some of the web's better-known creatives.

The site was created by Brad Simon, a senior designer at Wieden+Kennedy, and Alexander Barrett, creative lead at YouTube. Simon explains he hopes visitors will "show up to their laptops with a plate of hummus and baby carrots, and experience the entire issue by the time their plate is empty."

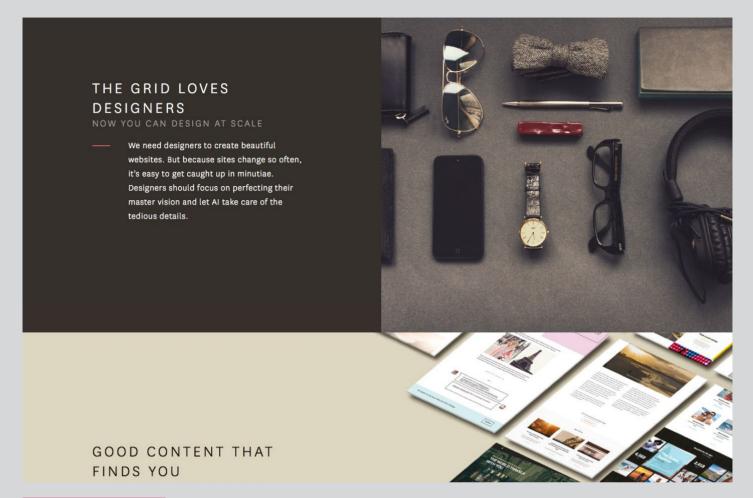
"Early on we had a contributor write a longform piece about brunch," recalls Barrett, when asked about their biggest challenge. "Brunch is definitely not a snack. We felt a little funny telling her to make her piece snackier, but we did. It's all about retaining snack integrity."

The site would benefit from a responsive execution (the lack of which will be punished by Google's new-ish algorithm), but do organic search results really matter when content is so magnetic?

Matt Stevens, who illustrated a gallon of cheese for the site, participated because "it provided an opportunity to try something a bit goofy". Stevens demonstrates the sentiment, core to this site, that the web doesn't have to take itself seriously all the time.



"[The web] is not all banks and law offices. You need the weird gift shop too" MATT STEVENS (@MATTSTEVENSCLT)



*JAVASCRIPT, CSS3, HTML5

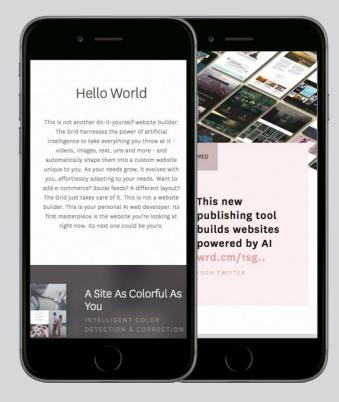
THEGRID.10

The Grid thegrid.io

The claims of The Grid are bold and compelling: 'AI websites that design themselves'. The Grid is a piece of software that takes modern creative trends – large-scale images, blurry backgrounds, long pages with gridded content, and of course responsiveness – and mashes them into layouts that serve a variety of needs. "It's as easy as that. Actually, it's incredibly complicated," says the video. While tongue-incheek, the site itself is an example of what the system can do, and it's impressive, cinematic even.

One drawback seems to be the length of the page and fatiguing repetition of stylistic elements, which begs the question of how the system styles will change over time. Designers might wonder too if a tool like this could render them jobless – is it a coincidence that The Grid's team page boasts a slew of talented engineers and only one designer?

At the time of writing, it was possible to join the site as a founding member. Once the webiverse begins filling with AI-generated sites, perhaps we'll have a better idea of whether or not this is a trend of its own, and if it is here to stay.





LONDON 17-18 SEPTEMBER 2015

Explore CSS, UX, web performance strategies, the Internet of Things, app icon design and much more!



ERIC MEYER
CONSULTANT AND
CSS PIONEER
meyerweb.com



RACHEL ANDREW
CO-FOUNDER,
EDGEOFMYSEAT.COM
rachelandrew.co.uk



SARA SOUEIDAN FRONTEND DEVELOPER, WRITER AND SPEAKER sarasoueidan.com

TICKETS ON SALE NOW!

Follow @netmag for details

generateconf.com/london-2015

SHOW CASE Sublime design & creative advice

THIS MONTH FEATURING...



It's no good hiding things behind obscure icons. If you want users to interact with something, put it on display, argues Gene Crawford



Argentinian web designer **Ignacio Giri**, also known as Nacho, gives his take on the overwhelming' qualities of the internet



HOW WE BUILT

How Code Computerlove used powerful storytelling to build a compelling global digital platform for Amnesty International

DESIGN CHALLENGE

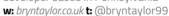
This month...

FAST FOOD SITES



BRYN TAYLOR

Daniel is a freelance designer and frontend developer based in Pennsylvania





ANTHONY ANDERSON

Anthony is a freelance designer specialising in working with startups in the US and UK w: an.thony.co.uk t: @i am tony

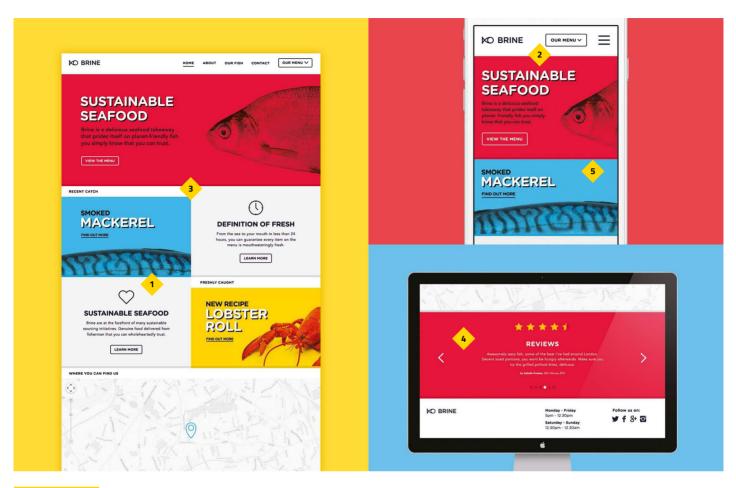


LUKE JAMES TAYLOR

Luke is the creative director at Aiir, and works exclusively for the radio industry **w:** *lukejamestaylor.com* **t:** @LukeJamesTaylor



This month, we would like you to design a site for a fast food restaurant. It could be a greasy spoon offering gut-busting all-day breakfasts, a retro drive-in that serves up classic American burgers, or an ultrachic sushi joint. The style and menu are up to you.



* BRYN TAYLOR

BRINE

A simple tile-based layout and punchy colour scheme welcome users to this sustainable seafood site

Brine is an independent takeaway with a principal focus on sustainably sourced, incredibly fresh, great-quality seafood. All seafood is Marine Conservation Society certified, which means you know exactly where the fish has been sourced.

With so few restaurants adhering to MCS standards, it is hard for the general public to do anything other than consume unsustainable produce. Brine aims to address this problem. The key concept is to educate the public about which varieties of fish are acceptable to eat and which should be avoided, and to provide an alternative to your average fish and chip shop selling over-farmed cod.

The Brine homepage is essentially a dynamic wall of content, providing users with a variety of information, broken into easily digestible modules. There could be a new recipe, updated menu item, new staff member or even a fresh new catch shown in these tiles.

CLOSE UP

(1) Brine's website boasts custom iconography based on clean lines. An SVG icon font has been used to ensure optimum quality on all devices. Not only does welldesigned iconography add to the visual appeal, it also helps significantly with section signposting. (2) Users can view Brine's current menu directly from the primary navigation dropdown. Content is shown via a pop-out box without needing to leave the homepage. This is the primary call to action, encouraging customers to learn about Brine's delicious menu. (3) A punchy and eyecatching colour palette firmly based around the three primary colours supports the 'back to basics' ethos of the company, as well as conveying a friendly and approachable tone. (4) The reviews carousel publicises the views of satisfied customers. (5) A percentage-based 16-column grid allows for seamless responsive content. The fluid modules adapt to the user's particular device screen size.

Ⅲ MY MONTH

What have you been doing this month? Working on the visual design of a prepaid card service website, and creating a minimal set of 77 Essential Icons in my spare time, which are now available for download.

Which sites have you visited for inspiration? Design Made In Germany and Behance.

What have you been watching? Better Call Saul and The Office (US).

What have you been listening to? Bonobo, Kendrick Lamar, Jurassic 5, Jamie XX, Common.





What have you been doing this month? I picked up a project for an NYC agency - it's an exciting concept, with lots of freedom, Plus I've been working exclusively in Sketch for the first time.

Which sites have you visited for inspiration? Hypebeast.com (the best daily newsletter around) and SoundCloud. because music is great for inspiration.

What have you been watching? Homeland season 4.

What have you been listening to? Fetty Wap and Drake's My Way remix on loop.

*ANTHONY ANDERSON

YAM YAM

A Korean restaurant site combines a sophisticated design with to-the-point content

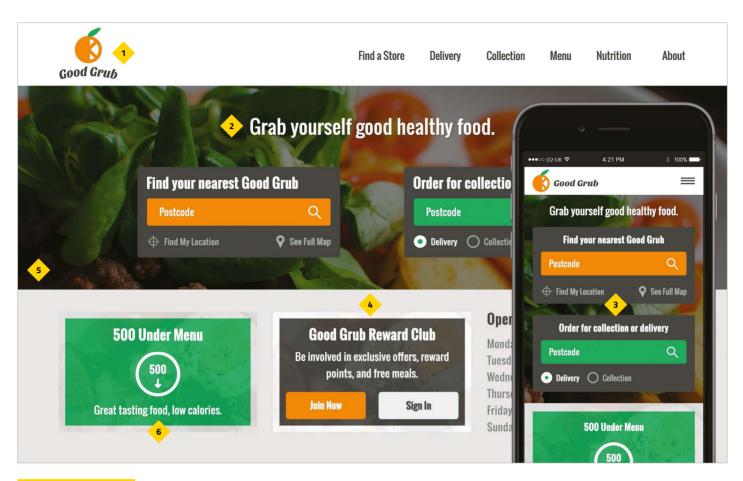
How many times have you been out for a meal and someone at your table has whipped out their phone and taken a snap of the food? Everyone loves a great food pic, and this site lets the photos sell the restaurant.

The name 'Yam Yam' and the branding for the restaurant are all taken from Korean culture, and a looping background video helps capture the street food culture. Korean text is used subtly as an overlay pattern to break up the space, working with the dark colour palette to create a sophisticated aesthetic. The font choice is a direct contrast to the traditional Hangul, which would have been too obvious.

Technology wise ... it is what it is! A pretty simple brochure site. Stick it together with Bootstrap and it's done. On mobile I've adjusted the design so there are two calls to action (Book and Menu), and positioned them within the first screen impression - there's no need to keep the long scrolling page.

CLOSE UP

(1) A fullscreen looping video in the background helps set the scene. On mobile, this would be replaced with a static image to reduce the users' data charges. (2) The content has been stripped down to focus on the most basic information users will be looking for: What food do they sell? How can I book a table? There's no point adding more visual noise when that's all the user really wants to know. (3) Small details such as the chopsticks overlapping the Bookings button help build a sense of depth. Parallax scroll could also be added to bring extra drama – the chopsticks could roll across the bowl on scroll, or fall off the edge on mouseover. Simple animations like these can add a real wow factor to simple designs. (4) On scroll, the location is highlighted and the surrounding area blurred out, to focus users' attention. (5) Rather than end on a boring standard footer, here a large image of the restaurant's dishes leaves a lasting impression.



* LUKE JAMES TAYLOR

GOOD GRUB

This food site provides a means for users to pick up healthy food quickly and easily

Good Grub aims to plug a gap in the market for quick, convenient, healthy food when you're out and about. Normally you are faced with unhealthy choices, and Good Grub offers a refreshing healthy alternative to the established fast food joints.

The site focuses on making it easy to locate stores, and to create an order for delivery or collection. The bold use of vivid orange and green helps to focus the user on the sections of the site that matter the most to them, as well as serving as a way of drawing attention to promotions - such as the 500 Under menu.

Subtle use of CSS animations and transitions would be used to give the site some movement and flair. Content is arranged by priority on mobiles to let users access the store locator as quickly as possible, while on the move. Location services would enable users to find the nearest Good Grub store with one tap on the Find My Location button.

CLOSE UP

(1) The logo aims to be bold and memorable, with its simple shape and bright colours. (2) The tagline 'Grab yourself good healthy food' draws the user in and explains the entire ethos of Good Grub in one line. (3) The two most prominent areas are the store locator and delivery/collection sections, as these are the two most common actions. I'd use parallax here to slowly hide and fade the hero section behind the navigation bar. (4) The Good Grub Reward Club offers customers the chance to build up loyalty points and claim free meals, as well as receiving exclusive offers. The sign-up process for this would be kept extremely minimal, requiring as little effort as possible to join. (5) Large background images hint at the types of food that Good Grub offers. There would be many of these on rotation, to keep the site feeling fresh. (6) The key promotion space allows for the latest offer to be displayed very prominently.



What have you been doing this month? Working on new responsive sites for a large radio group. I also had the chance to speak at our company's first ever keynote, about our latest products.

Which sites have you visited for inspiration? Designer News and CSS Design Awards.

What have you been watching? A little late to the party, but I've almost finished Breaking Bad.

What have you been listening to? Rage Against the Machine, Kings of Leon and Mumford & Sons.

* FOCUS ON

DON'T HIDE THE GOOD STUFF

Minimalism is all well and good, says **Gene Crawford**, but if you want users to interact with something, they need to be able to see it

I've been a long-time proponent of *not* hiding the important stuff you want your users to get at on your website ... and that means your main navigation. A lot has been written about the use of a hamburger icon, as well as other design patterns that similarly obfuscate navigation choices.

I'm not so much of the school of thought that is all about picking on the hamburger icon specifically. I do think it can work in some situations, for a targeted user type. In a certain setting, it may actually be appropriate and expected.

When reviewing designs for good UX, I like to ask a simple question: where is all the stuff located? Most of the stuff a user will interact with, where most of the user experience is, happens in a single view or page. So check for what you're hiding.

Keeping things like the main navigation, content or related imagery out of sight initially will only make it more likely that your user will never actually reach it. Keeping the interface nice and clean by hiding items under a side menu may not be the way to go.

This brings me to my main point, which is that you need to show the user the things you want them to interact with. This is especially the case with navigation items, which should be very obvious across your website. And if you are going to employ a hamburger-based navigation system, at least use it strategically so people can get to your content, even if they don't know what the menu icon is for.



Gene's mission is to work tirelessly to provide inspiration and insight for developers. His recent projects include *unmatchedstyle.com*





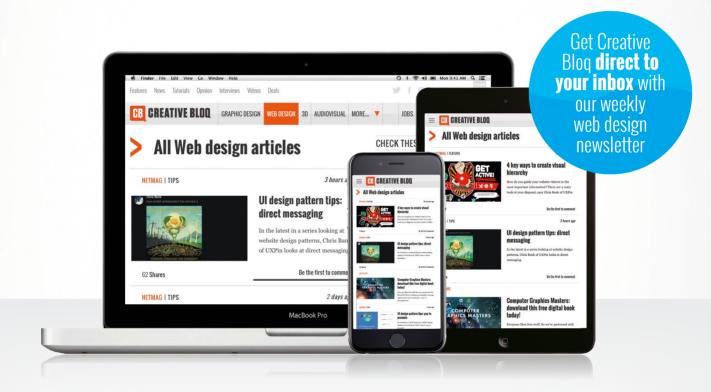


(1) The hamburger icon on the website for web design firm Grid & Flow (gridandflow.com), is used strategically. It hides background information, ensuring the focus

is on the prominently placed link to the agency's portfolio.
(2) The website for web design agency PRPL (purplerockscissors. com) utilises the hamburger for its

main navigation, but you can also scroll down and navigate the site without ever discovering what's under the icon. (3) The site for web design firm Pixelage (thepixelage.com)
uses a hamburger
icon-based menu in
a way that makes its
homepage more of a
splash page, moving
users in one of two
directions, based on
the visible links.

The number one destination for **web design** news, views and how-tos.





Graphic design

Web design

3D

Digital art





IGNACIO GIRI

ignaciogiri.com

The web designer known as Nacho explains how he strikes a balance between digital and physical

Argentina-born Ignacio Giri is a web developer-turned-designer working out of Detroit. When he's not busy trying to establish 'Nacho' as his personal brand, he spends his days working with everyone from fashion magazines to nonprofits. We caught up with him to find out if knowing the technology behind the design is a hindrance or a help, what's so great about the creative scene in Argentina, and why sometimes it's good to take a step away from the screen and into the real world.

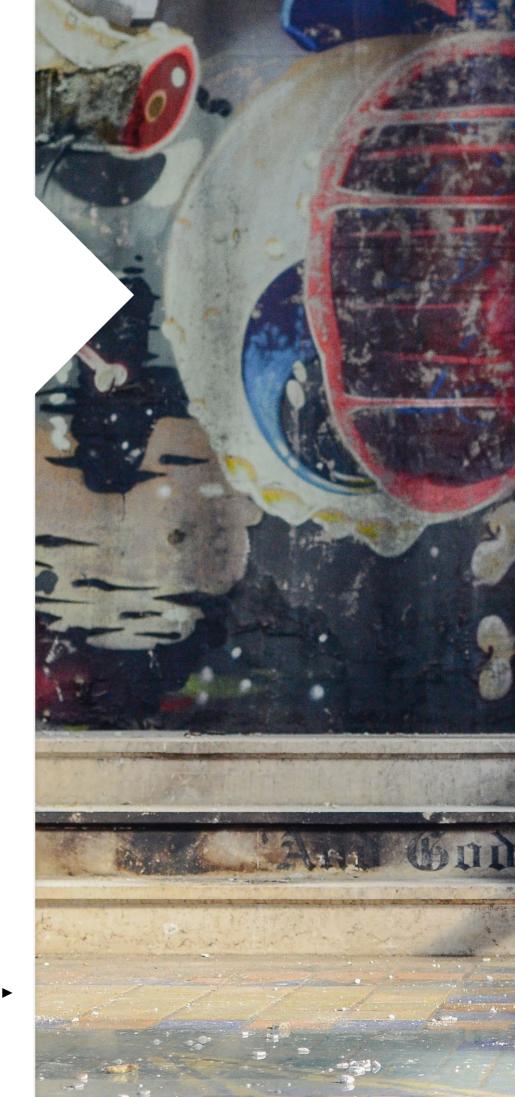
net: Why don't you introduce yourself?

IG: Throughout my career as an art director and graphic designer, I've had the privilege of working with hundreds of clients all around the world, ranging from small startups to Fortune 500 companies. By helping clients reinvent their unique identities, solve their challenges and ultimately reach their goals, I've had the chance to continuously learn and grow – refining my craft and becoming better each day.

net: Tell us about your time in California ...

IG: In 2012, I received an invitation to spend some time collaborating on a project in Los Angeles. It was the most enriching experience of my life so far. Moving from my little studio to Hollywood overnight allowed me to break out of my comfort zone and truly grow as an artist and designer. Funnily enough, my entire knowledge of American culture before I moved to the states was based on Seinfeld (I'm a huge fan).

Suddenly I found myself working side-by-side with big American companies such as Men's Wearhouse, the Los Angeles Times, Crate and Barrel, CB2 and Pinkberry. It was a dream come true. The exhausting hard work and all of the long





nights finally paid off. Being able to see the impact that my work was having in society was the most beautiful feeling. Not to mention the opportunity to live in such amazing city.

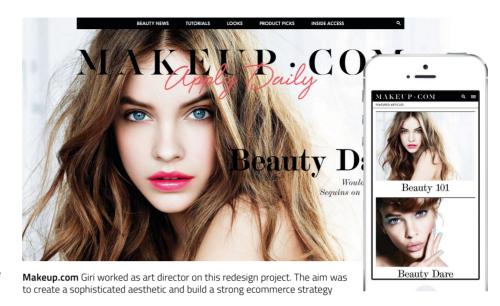
net: You're from Argentina - what's the web and design scene like there?

IG: Argentina is a very inspiring place. The web and design scene is pretty big in Buenos Aires, hosting amazing agencies like DHNN, Plenty and R/GA. I always say that Argentina has the best typography designers in the world. Don't believe me? Judge for yourself: Sudtipos' Ale Paul (alepaul.com), Typetogether's José Scaglione (scaglionedesign.com) and Pablo Impallari (impallari.com).

Not only that, the startup scene is on the rise. The very talented team at Mango (getmango.com) are trying to build a web payment platform specifically for Latin America. Recently, the DemocracyOS (democracyos.org) project was accepted by YCombinator. Amazing ideas and talented people. It is not crazy to assume that the next Facebook could come from there.

net: How did you discover design?

IG: I discovered it along with my love for technology. I'm part of the first generation



to grow up around computers. Back in the day, I was doing presentations and magazines for my school and I became obsessed with text formatting. From there, it was an endless road to new discoveries: typography, layouts, graphics, and last and most importantly ... HTML.

I bought my first Motorola 56k modem in 1999 – tears of nostalgia – and spent my time using Netscape, mIRC, ICQ and AltaVista. I witnessed the dot-com bubble with the rise of Google, eBay, PayPal and Amazon. Inspired by that fast growth, it wasn't long until I published my first website. The internet opened doors that I have never imagined. I was able to share my work all over the world. And it was all still just formatted text! That realisation left an indelible mark in my life.

net: You used to be a developer. Does having a grounding in technology help you creatively?

IG: Design without meaning is merely decoration. Content is key – I believe content precedes design. With the evolution of web browsers, with their gigantic chunks of data and millions of users, I was forced to learn how to shape data and create new forms of interaction, moving from PHP and MySQL to Node.js and MongoDB. I'm still debating with myself if having the developer mindset while designing hurts more than it helps. The shift from logical to objective is always a struggle. I like to design without barriers.

net: Do you feel more at home in GitHub or Photoshop?

IG: Photoshop! I merely use GitHub for prototyping designs and ideas.

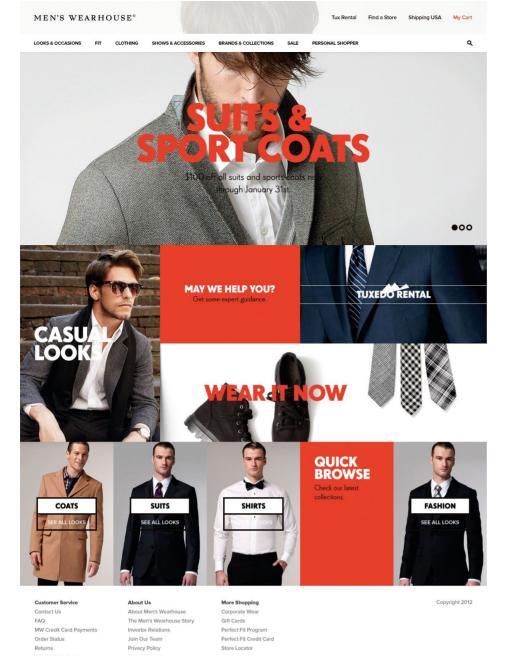
net: And, just for the record, how do you define design?

IG: It's about solving problems. To me, design isn't just about the visual, but the





CB2 Giri helped put together a multi-channel campaign to launch this homeware line from CB2



Men's Wearhouse When this clothing company needed to appeal to a younger audience, Giri redesigned the site to position the brand as an authoritative destination for fashion advice

overall problem to be solved. You will often find me collaborating with a team to discover many possible solutions. Once we have a great concept, I start sketching it out and working through user flows and interactions. To test the idea I create rapid prototypes. If the idea sticks, I begin creating wireframes and layout ideas to guide the team. But I don't stop there; I believe in leading by doing and I love to get my hands dirty. I will ultimately jump into Photoshop, Illustrator or Indesign to help bring the ideas to life.

Design isn't just a career, it's a lifestyle. It informs everything I do. It's with me at all moments. Because if design is about solving problems, there are plenty of challenges outside of your work if you

observe closely - at the gym, fishing, cooking, or even while using Netflix. Everything around you is designed for you, and you have the power to change it.

net: What, in your opinion, makes for a good interface?

IG: One that comes without instructions.

net: Your portfolio is a magazine on Issuu (netm.aq/qiri-269), which is an unusual choice. How did the idea come about? IG: Portfolio books are not an original idea, they have been around forever. My favourite is the fantastic Things I have learned in my life so far by Stefan Sagmeister.

My book was great for my personal brand - over 5000 people have read it online. Only



Profile



A look through the key dates in Giri's career

1999

Discovers HTML



MAY 2000

Publishes his first website on GeoCities at the age of 14, in a local library with one hour of Internet access per week



Learns PHP and MySQL



JUNE 2004

Secures first paid web design job



JANUARY 2005

Starts work in local shops as a web designer



JULY 2007

Expands client base to include the US, Spain, Germany, Switzerland and Japan



AUGUST 2007

Wins several web design contests



JANUARY 2008

Begins freelance career as UI designer



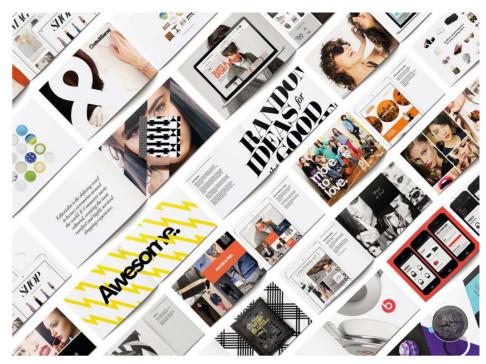
JULY 2012

Gets invited to LA to help Fortune 500 companies improve their digital presence



DECEMBER 2014

Moves to Detroit. Is granted the O-1 Visa for Extraordinary Ability in the field of arts



Design Creates Value Giri's portfolio book brings his digital output into the physical world

a few hardcover editions were printed. I'm a curator of pretty things. In the last couple of years I've been collecting inspiration from design communities like Dribbble, and Behance, and blogs like It's Nice That, Design Taxi and Design Made in Germany.

The internet brings us something new every day, every hour, every minute, every second. Sometimes I feel overwhelmed. I needed to move away from the screen. And let's be candid, Die Neue Haas Grotesk just looks beautiful when printed. That's why I decided to do my new portfolio as a book. Once it's on paper, it is set in stone. Featuring digital work in a book is a strange dichotomy that creates a completely new experience. It's tangible. It's personal.

net: It's titled Design Creates Value. What do you mean by that?

IG: Why do we like certain designs? What is it about them that draws us in, urging us to take a closer look, or burning them into our memory? Is there science behind the designs that we love? Ultimately, what is the value of design?

If the success of Apple - especially the Jobs era - is any indication, the way devices are put together, the way they look and feel, can have a significant impact on our buying behaviours. It's often said that people make decisions based on emotion, rather than logic or reason. Based on the price point that Apple products sell for, how else do we justify this expense?

Have you ever walked by a hole-in-thewall restaurant that you'd never have the compulsion to enter? Only, on a whim, you decided to give it a try - and the food turned out to be amazing? Unfortunately its appearance doesn't speak to the quality found within its doors. There was no thought or attention given to design - or maybe the owner simply didn't have the funds to spend on design.

Good design - especially as it pertains to marketing - should be a reflection of an individual or a brand. It should convey its core values, message and uniqueness. It is said you shouldn't judge a book by its cover, and while that is certainly true, it is also misleading. Our perception of design isn't necessarily logical; it often occurs very quickly, at an intuitive level. We like it. We love it. We don't like it. We hate it. We make prompt judgments most of the time.

Great design it is not about making pretty things, it's about taking the concept to the final product. It is in the creative process where great design gets its value.

net: Finally, what's was the most expensive gadget you've ever bought?

IG: I paid \$3000 to get the first generation iPhone delivered to Argentina a week after its release in 2007. I never used it outside. Lost it after a few months. I have no idea where it is. The pain is still there.



Next month: Creative director and pro (web) surfer Dann Petty

| NEW BUNDLE OFFER! |



SUBSCRIBE TO COMPUTER ARTS

Enjoy the tactile beauty of our print edition and the interactive delights of our award-winning digital edition in one package, and get behind-the-scenes access to top studios, pro analysis of the latest trends and inspiration that lasts all year

GREAT REASONS TO SUBSCRIBE:

Save up to 59% on combined subs
 Print edition delivered to your door
 Download the award-winning iPad edition
 13 issues in a one-year subscription
 Full money-back guarantee

FROM £32.99

Subscribe online today:

www.myfavouritemagazines.co.uk/CASUBS

Or call **O844 848 2852** and quote code **PRINT15**, **DIGITAL15** or **BUNDLE15**





* HOW WE BUILT

AMNESTY INTERNATIONAL

Code Computerlove used compelling storytelling and stunning imagery to encourage users around the globe to take human rights personally





Code Computerlove was asked to create a new platform for human rights organisation Amnesty International. This would act as the global face of the charity, enabling it to engage with audiences around the world and encourage human rights change.

CLOSE UP

(1) The new site uses storytelling combined with photojournalism and editorial content for maximum impact. (2) With a best practice global search and filter function (plus news feed), users can easily get to the information they need and that is relevant to them. (3) Every country has its own page, featuring a compelling, localised story of the state of human rights in that area. Strong imagery and components like 'Quick Facts' help viewers take in information

at a glance. **(4)** The site design needed to work across multiple different languages – the layout flips in reverse when viewing in Arabic. **(5)** Every page has tailored onward journeys for either key conversion actions like 'sign a petition' or to read more content. This ensures there are no dead ends. **(6)** We made it extremely easy for any user to be able to donate to their chosen country at any point on the site.

COLIN PRESTON



Colin is a creative lead at Code Computerlove and directed the site design for the Amnesty International project t: @colinpreston

SALLY ANDFRSON



An account director at Code Computerlove, Sally led the implementation of the new Amnesty platform t: @sallyeandersons

LUCY ANDFRSON



Lucy is Code Computerlove's research and insight manager, and led customer research on the Amnesty project t: @LucyDaisy

Amnesty International is a global movement that campaigns to end abuses of human rights. Its new platform, designed and built by Code Computerlove (codecomputerlove.com) sits at the heart of the organisation's digital framework. The site, which is led by bold imagery and powerful storytelling, aims to inform users around the world of Amnesty's work, and encourages them to get involved.

net: Can you introduce the new **Amnesty International site?**

SA: amnesty.org is the public face of Amnesty International. It not only communicates what Amnesty does, but also inspires people to get involved. LA: A key feature is the use of multimedia content to deliver an immersive online experience. User journeys have been carefully crafted following in-depth research and testing. The site is multilingual and has been designed to appeal to a wide variety of users who may be visiting from anywhere in the world, and for a variety of different reasons. CP: A key challenge was to define the global site's role in comparison to Amnesty's local sites, such as Amnesty UK. It had to complement these existing local sites and also cater for countries that didn't have a local site.

net: How did you get involved with the project?

SA: We already have strong charity credentials thanks to our ongoing relationships with organisations like

Greenpeace, Sue Ryder and WaterAid. Amnesty approached us after seeing what we'd achieved for Oxfam. We worked on a consultancy exercise to define Amnesty's requirements and strategy and then won the pitch for the design and build.

net: What problems did the redesign look to solve?

LA: The brief was to create a platform that catered for a worldwide audience, and that would sit at the heart of Amnesty's digital framework. The platform needed to act as the destination gateway for people to take more action by volunteering, involving themselves in a campaign, signing petitions or donating. It was also important to target a younger audience who aren't as aware of the charity. CP: Another objective was to showcase the best campaigning from around the world, and the diverse nature of Amnesty's work - for example, how global issues like 'Stop Torture' are being addressed very differently in the US to India - in order to highlight local issues and appeal to different markets.

Amnesty International shines a light on human rights issues through its research and journalism. The project looked to make this content more accessible and bring real-life stories to the fore in order to encourage people to take human rights personally.

net: Given the gravitas of Amnesty's work, did this project feel different? SA: We have lots of experience working with large-scale global charities and know



How the project progressed, from brief to completion

JUNE 2014

Strategy phase, including audience and stakeholder interviews to help define the role and scope of the new site. Presentation of the site vision



AUGUST 2014

Following a pitch process, Code Computerlove is appointed for the design and build



SEPTEMBER 2014

Kickoff of the experience design phase, working with Amnesty's design and UX team to develop the initial visual style



EARLY OCTOBER 2014

User testing of priority journeys, and refinement of wireframes, designs and user stories based on feedback



MID OCTOBER 2014

Content strategy implementation including performance review of old site content against new strategy



LATE OCTOBER 2014

Start of development phase, including set-up of Umbraco CMS and Azure hosting environment



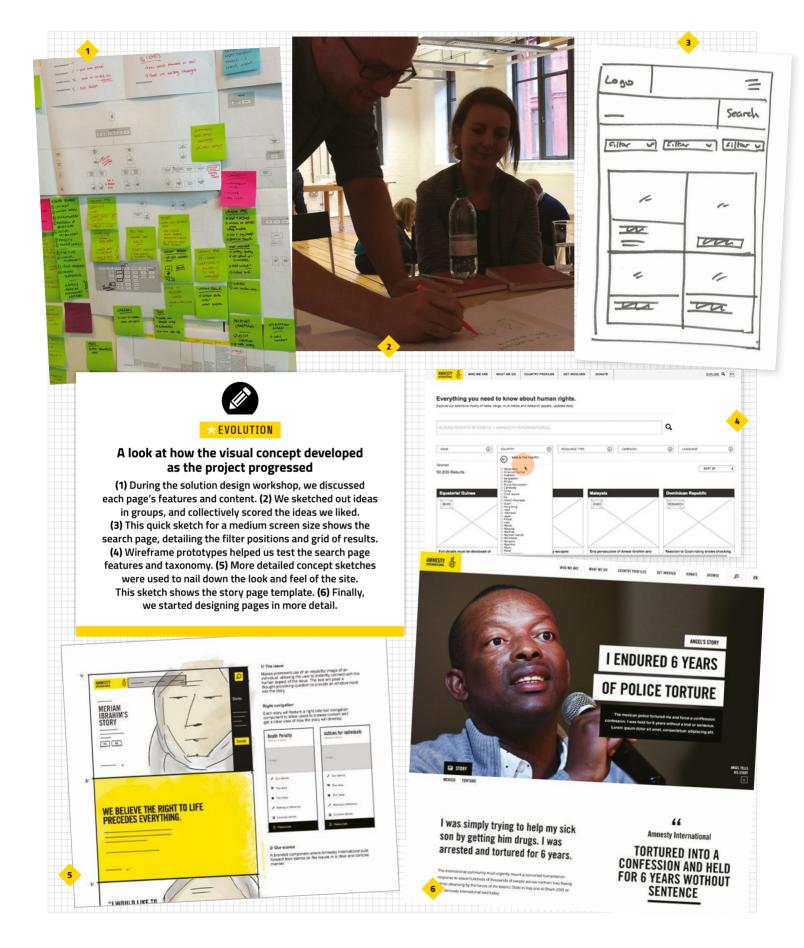
NOVEMBER 2014

Development sprints commence, focusing on key user journeys. Released for testing by the client every two weeks, with load testing built into each release



FEBRUARY 2015

Initial launch of new responsive site to coincide with the launch of the Amnesty Annual Report on the status of human rights. Development continues on additional functionality



how import digital is in achieving their objectives. We started working on the project just after news broke of the disappearance of a number of girls in Nigeria under Boko Haram, and this really brought home the importance of Amnesty International's work.

LA: In developing the strategy we spoke to a number of people affected by human rights issues. Being able to hear first-hand about the impact that Amnesty's work has undoubtedly helped us go the extra mile. CP: As a designer I always aim to solve problems with best-in-class solutions, but during the early stages of the project I became very aware of just how important the site was to people in all walks of life. I felt a huge personal responsibility to ensure the design stayed true to Amnesty International's values and vision.

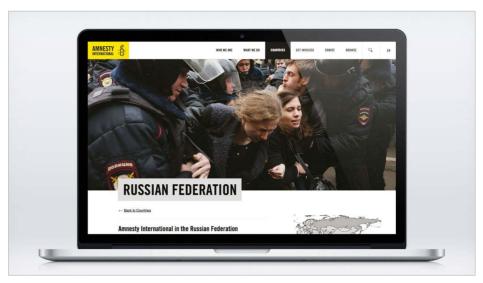
net: How did you test how effective the site was at meeting objectives?

CP: Because we needed to engage users that spoke different languages, came from different cultures and possessed varying levels of technical aptitude, user testing was paramount. It allowed us to test out any perceptions of how people would use the website.

LA: It's not good enough to simply produce a nice-looking site and hope it will perform against the client objectives. A/B testing ensured we launched with the most effective content and we are continuing to further optimise the pages post-launch, as we learn from how users are interacting with the site.

CP: The creative team here worked collaboratively with Amnesty's UX team to help deliver a top-performing site. We undertook numerous whole-team





International issues The site works to surface global issues alongside regional content

workshops involving frontend and UX, sketching out pages with persuasion techniques built in to aid conversion.

net: How important was prototyping?

SA: Prototyping allowed us to test some key interactions and establish what worked best before we got too far into production. Donate, join and search journeys were created as HTML prototypes, which evolved throughout the build. The site is in four languages (including Arabic, which runs right to left) so another key area we prototyped was whether the designs would work across all languages.

CP: As this was a mobile-first site, we focused particularly on the search function. We quickly found out whether certain interactions felt natural or worked on the small screen.



Making an impact Amnesty's strong emotive photography encourages users to take action

net: Did you talk to content producers during the design phase?

LA: Absolutely - this project was very much approached content-first. We gathered insights from key content producers across the globe through telephone interviews and online surveys. And we didn't stop at writers; we also got input from researchers, human rights activists, teachers and campaigners. **CP:** We prototyped with real content to check the designs would work mobilefirst. This ensured we championed content from the start and helped reduce common responsive snags.

net: Can you walk us through your approach to storytelling?

CP: The quality of Amnesty's existing content and the nature of its work meant storytelling became a key part of the strategy. The organisation has some amazing photography, which is especially powerful when coupled with the emotive stories from people in need. We recognised early on that from a creative point of view we wanted to let these things shine. We developed a story template that mixes shortform and longform, along with different media to keep the pages rich in content.



Next month: Clearleft's new website for a London borough

25 HOTTEST: WEB DESIGN TECHNIQUES

Cover feature

The Pastry Box Project's Katy Watkins and **Alex Duloz** invite the industry's leading experts to reveal their top tips on building a more efficient web

better web means a better experience for everyone. Users should be able to reach what they need without worrying about how they're accessing the internet. Developers and designers should be creating sites that can be smoothly maintained and updated. A better web does more than just work, it works well - for those who consume it and those who build it.

A better web is a more efficient web. Efficiency is at the heart of our projects, whether it takes the form of accessibility, responsiveness, content strategy or page load performance. From choosing the right CSS property to asking yourself the crucial questions that will make a whole project viable, efficiency is not just about going faster, it's about making things better. It's about, well, empathy.

We reached out to web designers and developers far and wide to hear their top tips and advice. Their suggestions span a wide variety of topics, all with a better, more efficient web at heart. Each of these tips is a door onto a new mindset that we invite you to consider and explore.

The more we share, the more we learn. We hope you'll find some new areas to dive into, even if you're a seasoned web designer. Go forth and learn.



STEVEN BONNER

Steven is an awardwinning designer and illustrator currently working with D8 as a design director. Previous clients include Nike, Audi and Cadbury stevenhonner.com

ALEX DULOZ

Alex is the happy owner of The Pastry Box, amongst other projects. Alex has a Twitter account (@alexduloz), but his tweets rarely stay online for more than 24 hours the-pastry-boxproject.net

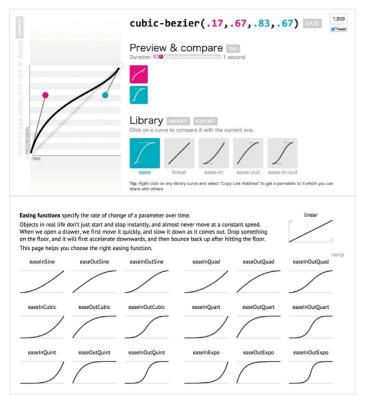
AUTHOR

KATY WATKINS

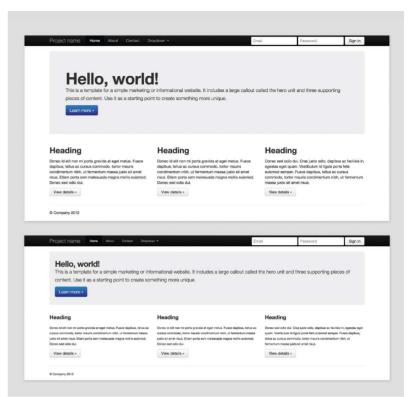
Katy (@_katywatkins) is a designer and content-wrangler Outside of work, she's kept the Pastry Box's daily schedule running for over two years katywatkins.com







cublic-bezier Developer extraordinaire Lea Verou put together *cubic-bezier.com* to help people improve their relationship with cubic-bezier() easing



Media queries Height-based media queries are a great way to keep important elements of your page in sight, when the height allows for it

Ask questions

Dylan Wilbanks, UX designer

dylanwilbanks.com

Who are you building it for? Why do they need it? Where will they use it? What devices will they use? Have you talked to them? If not, who has? How will you know when it's done? What's the test plan? Is anyone building a prototype? Do you understand what you're being asked to build? Do you have answers to any of these questions? No? Then get them answered before you build.

🕠 Listen to your code

Anne Gibson, information architect *kirabug.com*

Screen readers present your web page exactly as the HTML is written. So do search engines. Writing semantic HTML improves the experience for both, and includes a host of other benefits (to find out more of these, take a look at Paul Boag's article at netm.ag/semantic-269). Try checking the semantic quality of your pages by listening to them on a screen reader. If your page sounds out of order

or clogged with detritus, clean up your HTML. Screen readers can be more than 'just' accessibility tools. They can be used to help us write cleaner, more semantic, easier-to-maintain markup.

Protect the web's inherent accessibility

Rachel Andrew, co-founder, Perch rachelandrew.co.uk

The web is an accessible medium. An HTML document can be accessed by anyone, on any device, on the slowest of connections. Every choice you make as a designer or developer can protect that inherent accessibility, or it can damage it. That's a lot of power you have there. Use it wisely.

Take advantage of conditional loading

Brad Frost, web designer

bradfrost.com

Every web page consists of 'the thing' and a bunch of stuff that's not 'the thing'. Conditional loading is an essential tool for creating feature-rich experiences that

still load fast and prioritise core content. Look for opportunities to conditionally load social buttons, comments, related content and more. For more information, take a look at this article by Jeremy Keith at netm.aq/conditional-269.

Use Ceaser to write cubic-bezier

Jamie Kosoy, president and head of technology, Arbitrary

arbitrary.io

CSS transitions can be simpler to deal with than keyframe animations, but customising them with timing functions can feel pretty daunting.

transition-timing-function: cubic-bezier(0.250, 0.250, 0.750, 0.750); /* linear easing */

If writing out Bézier tweens by hand isn't your style, have no fear. With Matthew Lein's animation tool Ceaser (matthewlein.com/ceaser), you can quickly use one of Robert Penner's easing equations (robertpenner.com/easing) or build your own. Animate away!



THE GREAT DISCONTENT





"When people look for mentors, they often think it's something that's done to them, but it isn't. You don't have to ask permission; you don't even have to know the person..."



Michael Bierut



The Great Discontent TGD is a great example of what can be achieved with new techniques, while remaining accessible

06 Use height-based media queries

Dan Denney, frontend developer, Code School

dandenney.com

Make use of height-based media queries. These are great opportunities to improve experiences when the available height is limited. It varies according to design, but with the right adjustments you can often reduce the need for scrolling and improve readability. If the design has interactions or notifications, be sure to adjust them for limited heights as well. See an example at netm.ag/vertical-269.

№ 07 Keep the big picture in mind

Sally Jenkinson, consultant and solutions architect, Records Sound the Same sallyjenkinson.co.uk

Don't make your technical choices before you understand anything about the problems you should be solving. Introducing solutions too early can mean experiences end up being dictated or limited by technology, both for your visitors and administrators. Instead,

make your selections with the big picture and your wider project team in mind. Many technologies can do everything and anything, but should they? What's the knock-on impact on people, processes, technology and experiences?

Use namespaceing for your CSS files

Claudina Sarahe, entrepreneur and systems designer

itsmisscs.me

CSS file names are a glossed over opportunity. Namespaceing provides helpful clues to the contents of the file. If a partial doesn't produce output, append .config.scss; if a file imports other partials, append .manifest.scss.

Employ easy image fallbacks

Mat Marquis, open web engineer, Bocoup matmarquis.com

Responsive images are complicated, but while the RICG was getting the specification together, we found some opportunities for quick wins - brief syntaxes that could make a big difference

CASE STUDY THE GREAT DISCONTENT

The Great Discontent's website (thegreatdiscontent.com) is in many ways a model of what can be achieved today with cutting-edge techniques, while remaining perfectly accessible. Responsiveness, smart loading, adaptive images, progressive enhancement and a beautiful, classy design - it has it all.

"We launched the first version of TGD over four years ago, and ever since it's been a delicate dance of evolving the site while still adhering to the core concept it launched with: a focus on content and readability," says Ryan Essmaker, the brain behind the site.

"The biggest change this time around was adding a homepage that wasn't the most recent article. In doing so we made it more photo-heavy and had to consider page load and image delivery even more than we had previously. Aside from this, my objective was to take the site's large archive and make it more discoverable, giving us the ability to feature content in a more immersive way."

Photos are at the heart of the site. Browsing the website from a mobile device with a slower connection, it's obvious a lot of thought has been put into page load. To achieve this, the creators used a mixture of Elixir 3 (netm.ag/elixir-269) and imgix (netm. ag/imgix-269) to create and serve the images, alongside Unveil.js (netm.ag/ unveil-269) for lazy loading where it was needed.

With more than four years of content, pagination also has to be carefully taken care of. "The archive is around 170 images deep and MixItUp's pagination add-on (netm.ag/ mixitup-269) along with the previously mentioned setup are keeping that under control," Essmaker explains.



CASE STUDY COTTON BUREAU

If you like T-shirts, you'll have come across Cotton Bureau's website (cottonbureau.com), Built by the experienced people at Full Stop (fullstopinteractive.com), the site is a good example of efficiency achieved through conditional loading.

If the 100-or-so T-shirt images displayed on the site's homepage were to load simultaneously, users would have to wait some time before interacting with the core of the website, especially on slower connections. And if our day and age has taught us anything, it's that making users with slower connections unhappy is the easiest way to kill your business.

Developer Matthew Chambers worked on Cotton Bureau's homepage to make sure images are loaded only when they really need to be displayed - that is, when they appear in the viewport (that's the 'condition').

First - and this is very important users with JavaScript disabled are taken care of: for each T-shirt image, a <noscript> tag containing a regular is used. No JavaScript, picture loads, end of story. From that point on, the user experience is progressively enhanced with conditional loading.

The src attribute of each 'lazy image' (the tags not inside <noscript>) is left empty so that clients don't request images while the page loads (hence the efficiency). A script immediately starts monitoring all the s and their position in regard to the viewport.

When an image is inside (or enters) the viewport, a spinner is displayed while the src attribute is being filled with the appropriate URL (stored in a data-attribute). When the picture has finished loading, the spinner is removed and the T-shirt becomes visible. Ta-dah! for users. One of those was the addition of a type attribute on source, allowing you to serve alternate image formats with responsible fallbacks:

<picture> <source type="image/webp" srcset="image.</pre> webp"> </picture>

WebP for browsers that support WebP and a plain ol' PNG for images that don't, and just one request either way.

Master debugging in JavaScript

Raquel Vélez, senior software engineer, npm rckbt.me

Never underestimate the power of the console.log. When trying to understand a specific line, tag it with a useful piece of information. Something like console. log('foo; a=', a) will help you know what a is with respect to a function foo . When trying to isolate a bug, log everywhere that you think makes sense, with console. log('boom1'), console.log('boom2') and so

on, so you can see exactly where your code is breaking.

Make vour background images responsive

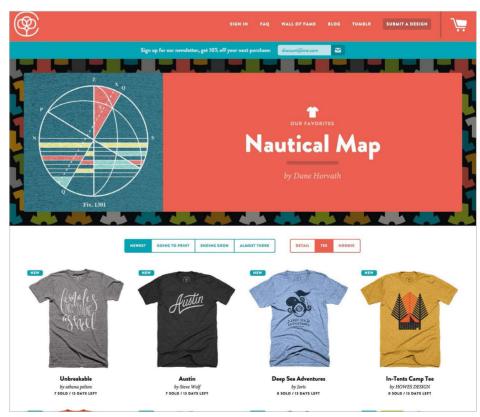
Julie Ann Horvath, designer iulieannhorvath.com

For beautiful and responsive background images, regardless of a screen's width, use the CSS property background-size: cover; . In addition to visual scalability, using background-size: cover; when specifying the size of a background element automates the pixel ratio the image will display at, without having to specify it in additional rules or markup.

12 Use mixins to create complex grid systems

Sam Kapila, design instructor, The Iron Yard theironyard.com

My students were learning how to build grid systems, as well as the power of using Sass mixins - so as a class, we built a mixin that would help create a flexible grid system. You can find it on CodePen at netm.aq/mixin-269.



Cotton Bureau This site uses conditional loading to ensure potential customers aren't kept waiting

At the first breakpoint, the grid system can have any number of columns, but the mixin itself will add the total number of columns with the total number of gutters (which is less one gutter than column).

Then a margin-right is added to the floated column. The mixin is variabledependent - specifically column width and gutter width. Finally, a :last-of-type resets the margin-right for the last column in each row.

Think about conversations, not pages

Paul Robert Lloyd, graphic designer and frontend developer

paulrobertlloyd.com

Thinking mobile-first is a useful way to approach the prioritisation of page content, and to decide which parts are critical and which can be loaded conditionally later. However, this exercise still assumes the presence of an interface. To build truly universal and accessible websites, we need to look beyond visual appearance. An alternative approach might be to think about pages

as being part of a phone conversation; what information might a user request, and how might the web page respond?

Provide keyboard support

Monika Piotrowicz, frontend development lead, Shopify

monikapiotrowicz.com

When building interactive interfaces, remember to provide keyboard support. Mouse events can also bind to keyboard events, keyboard focus should update as new content is shown or hidden, and the escape key can help cancel interactions. By taking these steps, keyboard users can get the same great experience as anyone using a mouse! For a demo, check out netm.aq/keyboard-269.

15 Design quickly in the browser

Frances Berriman, designer and frontend developer

fberriman.com

A nice way to design new features in-browser is to sketch the new thing directly in the code, to show to others. Mark the parent element of the new

feature with a class like sketchy, letting you apply styles to it to show it's a work in progress, or quickly comment all the sketchy bits out at once for a clean product demo.

16 Simplify your code

Sacha Greif, coder and designer sachagreif.com

Have you ever needed to return a value, but only if another test returns true? For example, you might write something like:

if (user.isAdmin()) {	
return password;	
} else {	
return false;	
}	

You can actually simplify this into:

return user.isAdmin() && password;

If user.isAdmin() returns false, the whole expression will return false. However, if user.isAdmin() returns true, the expression will return the value of password.



Background images Using background-size: cover; makes it easy to create responsive background images (audubon.org)



In the browser When designing new features in the browser, apply styles that show them as works in progress



Use mixins With smart use of mixins, it's easy to quickly create complex responsive grids







Percentage widths In 2014, ubuntu.com was converted into a responsive site. The new site loads fast and displays perfectly on smaller screens, with a clever two-column menu

17 Convert fixed widths to percentages

Inayaili de León Persson, lead web designer, Canonical

yaili.com A simple way to start transitioning a site from fixed-width to a responsive format is by converting all its widths to percentages and removing floats. If your main container is 900px wide, change that to a max-width instead change columns and other elements to the percentage they take up on the page rather than pixel units, and so on. Then look at your site on a couple of devices and you'll get a good idea of the next steps: they might be fewer, and easier, than you think! The process of making ubuntu.com responsive is explored at netm.aq/responsive-269.

18 Embrace the title field

Corey Vilhauer, UX strategist, Blend Interactive

eatingelephant.com

Nailing the title field can be an easy way to classify on the backend and clarify

on the frontend. Make things easier for editors by being clear what each title field means. One should be for navigation ('Classes'). One should represent the page's title, which will populate the <title> ('Our Classes'). And one should be used in the CMS to help keep things in order ('Class Listing'). Mix and match as your organisation requires.

19 Configure Git

Stacey Mulcahy, senior technical evangelist, Microsoft

thebitchwhocodes.com

Save time by configuring Git. Configure a global ignore file for files you will never want to commit. Place a gitignore file in '~/.gitignore' and then you can \$ git config --global core.excludesfile ~/.gitignore.

20 Use Git commit hooks

Brian Suda, Owner, (optional.is)

suda.co.uk

As new technology appears to streamline our workflow, we begin to adopt more and more dependencies. How many people are regularly using Less or Sass to manage

their styles? Or tools like JSLint for JavaScript? Tools to concatenate, compress and cache your assets?

Inevitably we forget to run some commands and outdated files get saved into repos or pushed to production. We use Git commit hooks so we never forget. By setting up some pre-commit hooks, all of these commands are run each time we submit our changes.

1 Learn from issues and errors

Alex Duloz, developer

bitspushedaround.com

No matter how many times you've tested your application, and how many devices you've used, there will be unexpected behaviours. You will never, ever launch an application that doesn't contain bugs, so make it easy for your users to let you know about any issues they encounter while using your website.

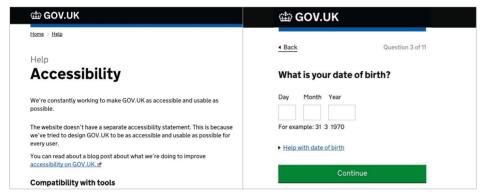
Leverage the GitHub API from your own website using a simple form. Log server errors and analyse them. And use something as trivial as window.onerror to keep track of JavaScript errors (or go for



PageSpeed Insights This tool helps you measure and monitor your websites' performance



webtest.org Here you can create videos of your sites in action, to get an idea what your users are experiencing



Select boxes Gov.uk makes things easy for users with low technical confidence by using simple text inputs and server-side validation

a try {} catch(e) {} at the entry point of your code). Take a deep breath, go live, and perfect your work based on that wisdom.

Peel how fast your site is

Lara Hogan, senior engineering manager of performance, Etsy

larahogan.me

Waterfalls aren't the only way to visualise your site's performance. On Webpagetest. org, you can create a video of how your site loads over time - simply check the 'Capture Video' box in advanced settings. This will help you feel how fast your site is from different locations and on different devices, and you can see what your users are truly experiencing.

Noid long select boxes

Alice Bartlett, frontend developer, GOV.UK alicebartlett.co.uk

Stop using select elements for date of birth. Providing a date of birth is part of many basic transactions on the web. It's common to see select boxes used for dates of birth, but research shows that long selects are very difficult for those

who are not confident with technology to use. Text inputs with server-side validation allow users with low technical confidence to transfer their understanding of paper forms onto web forms.

24 Scale icons with background-image: cover;

Julie Ann Horvath, freelance designer julieannhorvath.com

If you're using the background-image CSS property to add and style an icon image, another option for scalability is background-image: contain; . While in theory you could use background-image: cover; , if the element containing the icon has rounded corners, cover may cut off parts of the icon image. contain will size it appropriately, and to scale.

25 Keep it short and sweet

Anne Gibson, information architect kirabug.com

Be succinct in your emails and robust in your code comments. If you need practice in writing 'short and sweet', join the development community on Twitter.

RESOURCES

Can I Use

caniuse.com

Find out which browsers support the element you're using with this easy-touse site. It's an essential resource for anyone building modern websites.

PageSpeed Insights

netm.ag/insights-269

See how your website performs, both on desktop and mobile.

Web Pagetest

webpagetest.org

Full of neat features, Web Pagetest will help you improve the performance of your projects. Harshly, at times.

Filament Group's articles

filamentgroup.com/lab

Read each article published on Filament Group's website. Then read them again. Then wake up a better developer.

A Book Apart

abookapart.com

They say it best: "Brief books for people who make websites". These books may be short, but they're full of useful information and resources.

Code School

codeschool.com

An ever-expanding collection of courses created by experts, and centred around a creative theme. They combine video tutorials with practical challenges, so you're writing code and solving practical problems from the start.





ESIGN FANTASTIC PRODUCT LISTS





















The product list design can make or break an ecommerce experience. Christian Holst shares some insights to get your users on the right path to finding the product they're looking for

ithout the right tools, finding just the right product on an ecommerce site can be an almost impossible task for the user. Product lists and their filtering and sorting tools determine how easy it

is for users to browse the potentially thousands of products in categories and search results.

At Baymard Institute we've spent the past nine months conducting a largescale study of how users browse, filter and evaluate products in ecommerce search- and category-based product lists. This has led to a number of usability findings on how to design high-performing product lists, and a benchmark database with more than 4,500 data points on ecommerce product list performance.

During the test sessions, the sites with mediocre product list usability saw abandonment rates of 67-90 per cent, while sites with even a slightly optimised toolset saw just 17-33 per

cent abandonments for the very same product-finding tasks. In this article we'll take a closer look at some of the study's key findings.

PROMOTE THE MOST **IMPORTANT FILTERS**

Some categories have certain filters that are highly important and beneficial for the user to consider. However, simply displaying these as traditional filters in a filtering sidebar runs the risk of users either overlooking these options or not understanding the importance of making the selection.

While testing the ecommerce sites, we generally saw that users would approach categories as something the site was encouraging them to select, whereas the traditional filtering options in the sidebar were perceived as purely optional choices by most users.

Most sites have a number of categories that need to promote certain filters or filter combinations. For example, if a user navigates to a 'Digital Cameras'



Christian is the cofounder of Baymard Institute, where he conducts large-scale usability studies of leading ecommerce sites, and consults for several Fortune 500 companies baymard.com

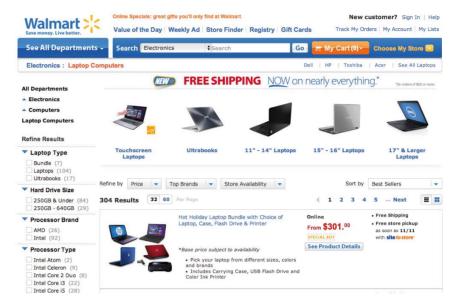
category, 'Camera type' would be a highly important filter to consider, with filtering values such as 'Point & shoot', 'DSLR', 'Mirrorless' and 'Bridge'.

As promoted filters will encourage users to apply them, they should be used intelligently and sparingly, to avoid luring users into overly narrow filtered lists. For example, the technique shouldn't simply be used site-wide for whatever is the most popular filter in each category. In practice, this will often mean there needs to be a manual curation of which filters the vast majority of users will either have interest in or gain significant benefits from applying.

These promoted filters don't necessarily all need to be of the same type - they can simply be a combination of the most important product filters that users can make before spending further time investigating the actual product list. Finally, the filter promoted above the product list should still be kept in the filtering sidebar, to enable shoppers to use the sidebar in the conventional way if they wish.

Key takeaway

For select categories where an initial filter selection will be highly relevant and benefit the vast majority of users, consider promoting those few filtering values above the product list (for example, by using buttons, text links or thumbnails). Our benchmark of the 50 top grossing US ecommerce



Walmart This site promotes a mix of laptop size and input-type filters that align with users' key purchasing parameters

sites reveals that only 16 per cent of the sites currently utilise this highly effective technique.

INCLUDE COMPLETE RATINGS INFORMATION

Product ratings can be incredibly helpful to users. During our research studies we've observed how the test subjects rely on ratings to gauge a product's quality or value - especially in verticals where they lack domain knowledge or have little prior product experience.

However, both our qualitative and quantitative research clearly show that if users are to be able to use product ratings this way, two key pieces of information must be present: the average rating score (obviously) and the number of ratings that average is based on.

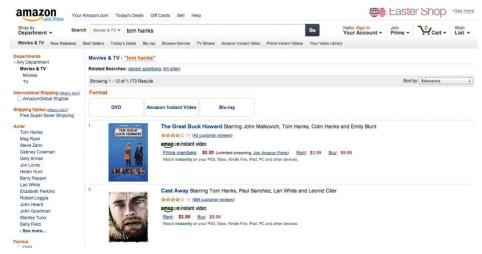
Unfortunately, some sites leave out the number of ratings in the product list and only display the rating average, much to the detriment of their users. When users don't know how many ratings an average is based on, they can't tell if a perfectly

TO BE USEFUL, A **USER RATING AVERAGE** SHOULD ALWAYS BE **FOLLOWED BY THE** NUMBER OF RATINGS

rated product has one single 5-star rating, or if the rating average is actually based on hundreds of reviews.

Our product list benchmark reveals that 68 per cent of sites display both the rating average and the number of ratings, 14 per cent neglect to display the number of ratings next to their rating averages, and 10 per cent don't show ratings in their product list at all, despite collecting them (the final 8 per cent don't collect user ratings in the first place).

Users often show greater disposition towards some products with 4.5-star



Amazon Highly relevant filters are promoted above the product list, nudging test subjects towards better filtering decision

Ouick view

Quick view features are currently found on 48 per cent of ecommerce sites, and are becoming increasingly common. However, in testing, we observed several usability issues for quick view features:

- 1 Quick views are often symptoms of a more deep-rooted product list design problem. Sites that see an increase in conversion from quick view are likely to have an inferior product list, with insufficient information to guide users to the next step.
- 2 When vital product information is relegated to a quick view, users can no longer compare the products in the list at a glance.
- 3 The hierarchical position of a quick view can be tricky to understand. It's not an item in the product list, but it's not a product page either. This caused some subjects to misinterpret the quick view as the site's product page, and discard perfectly suitable products simply because they could not find the information they were looking for.
- 4 For many users, the primary click path from a product list to the product page is the product thumbnails. The quick view button or link should therefore not be positioned in the middle of the thumbnail, as this will increase the risk of users misinterpreting the opened quick view overlay as the site's product page.

Instead, consider placing it in the top or bottom of the list item element, or in the corner of the thumbnail.

During testing, a better alternative to quick views proved to be utilising mouse hover to display an additional product thumbnail and additional product information, directly within the product list.

Be very cautious when using quick view features. Even when they perform well, they are often a symptom treatment of a product list design which lacks basic product information or adequately sized thumbnails. Hover effects usually perform better.

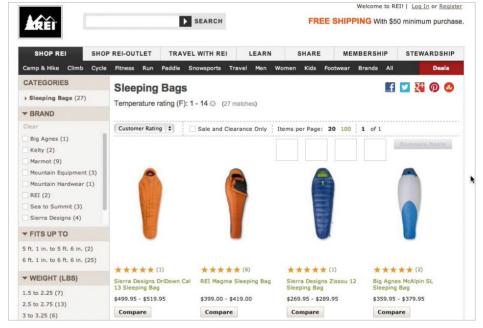
averages than some with perfect 5-star ratings, due to the number of votes these averages are based on. For instance, most test subjects would select a sleeping bag with a 4.5-star rating average based on the average of 50 reviews, over other sleeping bags with a perfect 5-star rating that was only based on a few reviews. They simply didn't find the latter to be trustworthy enough.

To further investigate the user rating bias, we tested three different rating averages against 2,250 people. The results showed that for two otherwise identical products, where one product has a 5-star average based on two ratings, and the other has a 4.5-star average based on 12 ratings, 62 per cent will pick the one with the higher number of ratings - despite its lower average.

The quantitative test also found this to be true with a higher number of ratings. When presented with a 5-star average based on four ratings against a 4.5-star average based on 57 ratings, 61 per cent would pick the option with the higher number of ratings and lower average (netm.aq/rating-269).

Key takeaway

A user rating average should always be followed by the number of ratings - especially considering the negligible



Rei By including the number of reviews next to the average, users can determine if they find that sample size sufficient



amount of space it takes up. Without the The Entertainer A 4-star average based on two ratings caused some users to disregard this product's ratings information

number of ratings, users will be unable to determine whether they find the rating average trustworthy or not, and unable to gauge which products are actually to be considered the 'best rated'. In our study, 24 per cent of sites neglected to include this information.

KEEP PRODUCT SPECS OUT OF THE TITLE

While simply making the title of each product a grab-bag of product name, type, brand, and other product specifications may be convenient for site owners when adding products, the usability testing showed that it sure isn't convenient for users – the test subjects had difficulties scanning product lists. However, 50 per cent of sites still include product attributes in the product title, impeding readability and making product comparison difficult.

When all these product specifications are mixed together rather than presented as separate entities, users will have to read the entire title and mentally break it down into its various components. They'll need to do this for each and every product in the product list.

In practice, the test subjects didn't bother, and instead scanned only five to 10 products (missing out on numerous relevant products) or briefly skimmed more products but without properly deconstructing their titles, consequently rejecting and investigating products based on inaccurate assumptions.

Note that when I say information should be listed as separate entities, this doesn't necessarily mean they need to be presented in separate columns or rows (which can take up additional screen real estate). If it is aesthetically desirable or if space efficiency is important, it is

use an inline scrollable area, or truncate the additional values behind a 'show more' link. All three methods can cause severe usability issues. The two first performed the worst during testing, while the truncation method proved to be the better performing option.

However, the superior performance of truncation was only observed when the risk of users overlooking the

ADD VITAL PRODUCT ATTRIBUTES AS SEPARATE ENTITIES RATHER THAN INCLUDING THEM IN THE PRODUCT TITLE – THIS AIDS COMPARISON

still possible to keep everything on a single line of text, as long as the product specifications are styled differently.

Key takeaway

In product lists, add vital product attributes as separate entities (i.e. with a separate style) rather than including them in the product title. This vastly improves how scannable the list is, and aids product comparison.

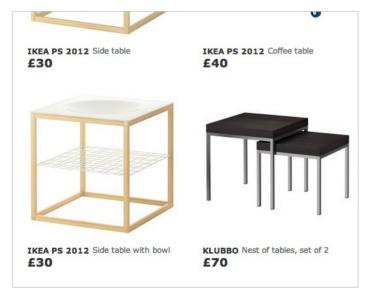
TRUNCATE LISTS (THE RIGHT WAY)

When displaying long lists of more than 10 filtering values, sites tend to either simply display all values in one long list, truncation link was actively dealt with in the user interface – otherwise it runs the risk of some users assuming the truncated list represents be all the filter values available.

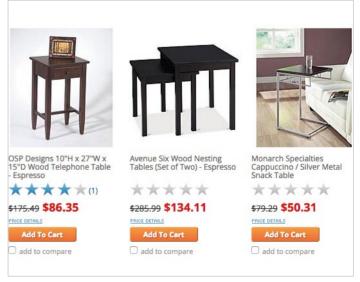
For a sufficiently clear truncation link, three design patterns in particular emerged during testing:

1. Don't truncate your list too soon

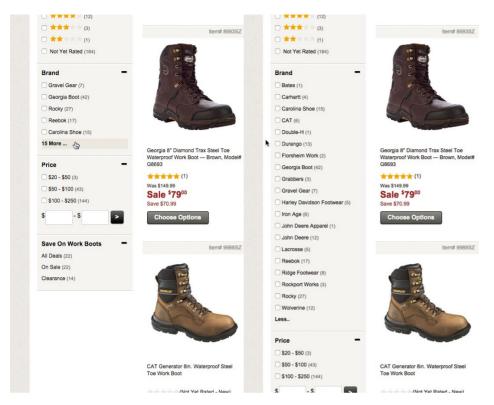
Display up to 10 filtering values before truncating the extras. Sites with fewer than six filtering values before truncating caused confusion about the necessity of the truncation. And if many more than 10 values were displayed, the subjects began to lose the overview of their options.



Ikea Notice how product type and name are styled differently to keep them distinct, making the page much easier for users to scan



Sears In comparison, see how difficult scanning the products becomes when name, type, number of items, materials and so on are all presented as part of the product title



Northern Tool Filters are listed by popularity when the list is truncated, and alphabetically when expanded

2. Prioritise based on popularity

The filtering values that aren't truncated should be listed in order of popularity, rather than alphabetically or by number of matches. Users will often scan the product list for filter value keywords - so, for example, they will scan a page of laptop chargers for 'Lenovo filter' rather than a filter type named 'Compatible with'. Consequently the un-truncated values should be those users are most likely to recognise when glancing at the page.

3. Differentiate your truncation link

The truncation link needs to be styled so it is clearly distinguished from the filtering values directly above it. Approaches that performed well included marking up truncation links using the site's default link styling (colour and/or underline), adding spatial indicators such as a '+' or an arrow icon, including the number of matches in the name of the link ('View 23 more'), not using the same indentation as the filtering values and visually fading the last value in the truncated list.

Key takeaway

Long lists of filtering values should be truncated rather than displaying all values or using inline scrollable areas. Display seven to 10 values before the truncation link, display the most popular values, and make the truncation link styling distinct.

IMPROVE PRODUCT LISTS

The study found that seemingly small details in the product list design can make users' product discovery up to four times more effective. However, the study also revealed the vast majority of sites have a lacklustre product list and filtering design, limiting their users' ability to evaluate the product selection.

When designing product lists and filtering, employing techniques such as promoting relevant filtering values, including the number of ratings alongside the ratings average, keeping product attributes separate and truncating long filter lists (with care!) can make a huge difference. Help your users find the product they're looking for easily by paying attention to these details.

Additional research

Product Lists & Filtering benchmark database

netm.ag/data-269 Both the usability rankings and the design of the product lists of the 50 top ecommerce sites are available in the public part of Baymard's benchmark database.

Users' Perception of Product Ratings

netm.ag/rating-269 The full data set on users' perception of product ratings.

Guidelines for Truncation Design

netm.ag/truncation-269 Additional insights on how to make the filter truncation link sufficiently clear.

Guidelines for Better Ecommerce Navigation and Categories

netm.ag/navigation-269 Further research findings on how to generally improve category navigation on ecommerce sites.

Product Lists & Filtering Usability Report

netm.ag/report-269 Baymard Institute's full report with all 93 findings specific to ecommerce product lists and filtering usability.

net readers purchasing the Product Lists & Filtering report and benchmark will receive a 38-page bonus report on Mobile Checkout Usability. For details see: baymard.com/deal/netmag

FRONTEND MASTERS

NET GIVEAWAY

FREE ACCESS TO ALL OUR COURSES

LEARN FROM EXPERTS WHO SHAPE THE MODERN WEB





MONTHS FREE







CODE
AND
WALKTHROUGHS

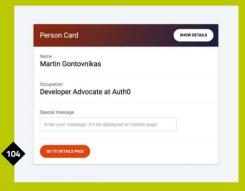
PROJECTS!

Tips, tricks & techniques

THIS MONTH FEATURING...







MASTER THE TRICKS OF RESPONSIVE EMAIL **HEAD TO HEAD: COMPASS VS BOURBON** **CREATE LIVE MOCKUPS USING ANGULARIS**

CREATE A LOGO WITH AFFINITY DESIGNER

DESIGN AN EFFECTIVE SPA WITH EMBER

MEASURE YOUR SITES' MOBILE PERFORMANCE

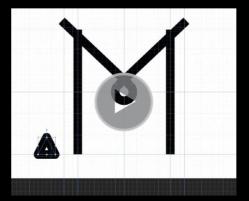
TEST YOUR SITES ON MULTIPLE DEVICES

WEB STANDARDS: ESTABLISHING STANDARDS **ACCESSIBILITY: SENSORY UX**



BROWSER SUPPORT

We feel it's important to inform our readers which browsers the technologies covered in our tutorials work with. Our browser support info is inspired by @andismith's excellent When Can I Use web widget (andismith.github.io/caniusewidget). It explains from which version of each browser the features discussed are supported.



EXCLUSIVE VIDEOS

Look out for the video icon throughout our tutorials. This issue, four authors have created exclusive screencasts to complement their articles and enhance your learning, including Jennifer Wong's tutorial on mastering responsive email, and Martin Gontovnikas' guide to creating mockups with AngularJS.







ABOUT THE AUTHOR JENNIFER WONG

w: mochimachine.org

t: @mybluewristband

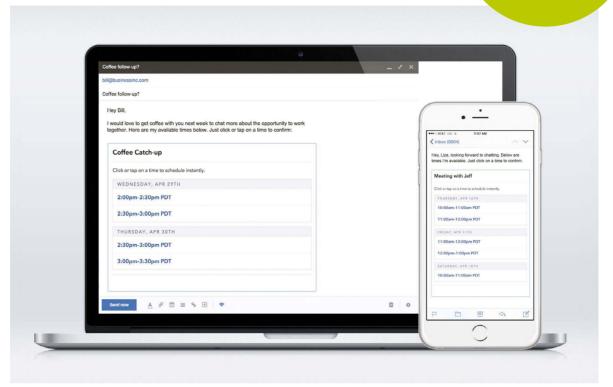
job: Frontend developer

areas of expertise:

HTML, CSS, Sass, JavaScript, jQuery, RWD, responsive email design

q: what's the strangest thing you've ever eaten?

a: Geoduck sashimi



*EMAIL

MASTER THE TRICKS OF RESPONSIVE EMAIL

Jennifer Wong tackles tables, inline styles and inconsistent CSS support to show you how to design emails fit for 2015

It's the moment you've been dreading: the project of redesigning all consumer-facing emails and making them responsive becomes yours. And you've heard the rumours - designing emails means coding like it's 1999, creating tables and adding styles inline (heaven forbid), and throwing best practices and hopes of compatibility out of the window. Unfortunately, the rumours are true.

For starters, tables are the only reliable way to create consistent email layouts. Inline styles are a requirement because many email clients do not support external style sheets, and Gmail doesn't support the <style> element. Add to that inconsistent CSS support across email clients,

and it seems like responsive emails are the makings of disaster.

Not to worry! In this tutorial, I'll help you get your emails in shape for 2015 and ready for the responsive spotlight. I'll show you:

- What's so important about design and how a bit of research will save you a ton of time
- Why you need a reusable, maintainable template (or three), and how to design one
- When and how to use media queries and the ever-controversial !important
- How to make desktop, mobile and web-based clients play nicely together (and which ones to watch out for)



Jennifer Wong has created an exclusive screencast to go with this tutorial Watch along at netm.ag/emailvid-269 So let's get started. When starting the design of an email, the first, most important step is to establish your audience. Where do they check their emails and what types of devices do they use? How much time do they spend viewing each email? Are they more visual or analytical?

You need to determine the devices and clients on which your users view emails. Targeting specific devices and email clients confines the actual work of implementation, saving you time. For example, knowing the majority of your users view their emails on mobile devices means you can spend more time focusing on mobile email design and less on desktop. Or if you know that only 0.5 per cent of customers use Outlook 2000, you might decide not to support that email client at all.

DESIGN ELEMENTS

Knowing which devices most of your customers use helps you design for a specific minimum touchable area (MTA). This can be thought of as the size of a button for mobile devices.

Knowing what devices most of your customers use helps you design for a specific MTA

You'll often hear 44px by 44px thrown around in mobile design discussions about MTA. Unfortunately, that number comes from the Human Interface Guidelines for the first iPhone. In other words, it's severely out of date. Accurate numbers should be based on the average size of a human's thumb (about 0.4 inches, according to one study: netm.aq/thumb-269) and the pixels per inch (PPI) of the device.

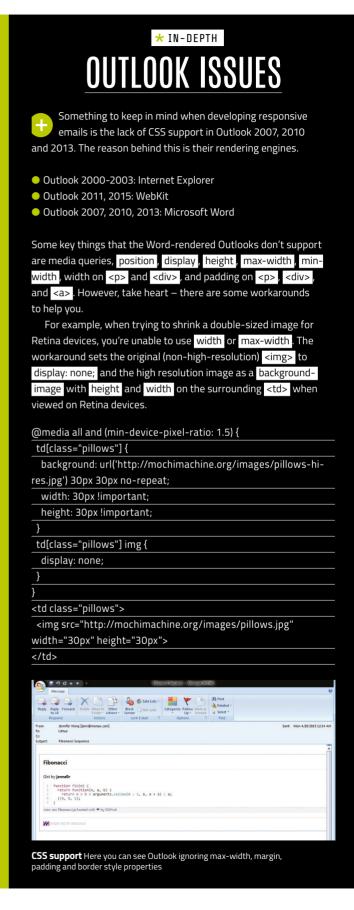
A quick calculation will give you the minimum pixel dimension (MPD) for the size of your buttons:

0.4" x Device PPI = MPD

PugetWorks provides some helpful numbers here: netm.ag/puget-269.

Content above the fold is another crucial aspect of responsive email design to consider. Your most important information should be conveyed in the initial viewport of any device. If your hero image is too tall and has huge margins, your title text may be pushed below the fold on a mobile device.

It's even possible that people won't think to scroll down, thereby disregarding your email entirely. Keep this in mind when designing your emails and be sure





to use an email testing suite or a library of devices so you can see what content is immediately viewable across devices and email clients.

Once you have an initial design, it's a smart idea to iterate. A/B tests determine what types of emails and designs are most effective for your users. It's a common belief that more images mean more engagement, but sometimes text-heavy emails result in better click-through rates. The only way to know is by testing the heck out of your emails.

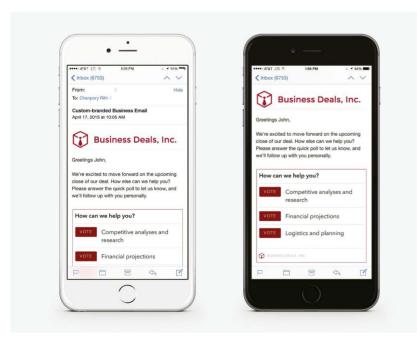
USING TEMPLATES

Templates save time by following the DRY principle. They also allow for abstraction of code and the reuse of styles and snippets over several types of emails. You'll likely have one overarching (or main) template that contains base styles for all of your emails, snippet templates for pieces of code that appear in most of your emails, and several unique templates that each represent one email.

Think of your main template as a sort of container for your emails. Use max-width of 550-600px, a number based on the typical preview pane of email clients. With max-width, content will stay enclosed within those bounds, ensuring that users won't have to scroll or scan from side to side. Note that max-width is not supported by Outlook 2007, 2010, or 2013 (see boxout on page 85 for more on this).

Next, consider what design elements you're likely to reuse in most emails. For example, you'll probably have the same header, footer, and social media calls to action in many of your emails. These will be your snippet templates. For snippets, use a templating system to break those portions of code

Mind the fold Apple Mail sometimes displays email details such as the sender, subject and time, pushing content below the fold



out into their own separate files. Then every email that uses those snippets can include an abstracted file in its unique template, saving you from typing the same code over and over again.

At a previous job, we used Handlebars.js and had a snippet (or what Handlebars calls a 'partial') for a badge that was repeated in our email widgets. So I had a snippet file called _badge.hbs and included it using the syntax for partials: {{> badge}}}.

TACKLING TABLES

Mozilla Developer Network states, "Prior to the creation of CSS, HTML elements were often used as a method for page layout. This usage has been discouraged since HTML 4, and the element should not be used for layout purposes" (netm.ag/MDN-269). But when it comes to email, we know better: tables are necessary for layout.

Without an outer , the entire email will disappear from Apple Mail and Outlook 2011. But even if we do use an initial outer , that's just the beginning. The more complicated the layout, the more s you'll need.

Since emails contain a multitude of nested tables, comments often save the day. Add comments stating the purpose of a table at the beginning and end of the table's HTML to help you and your colleagues quickly read your email code.

<!--Inner Table Begin-->

<!--Content Begin-->

<!--Inner Table End-->

When designing my first template, I discovered that you need to set to display: block; or email clients on Chrome will ignore your max-width. This is something to keep in mind if you notice problems with your table widths.

INLINE STYLES

As mentioned above, because of inconsistent <style>, <link>, and <head> support, inline styles are necessary to style your email. You can save time by finding a CSS inliner tool that will translate styles from a <style> or external style sheet, so you don't have to write CSS in multiple places.

There are many inliner tools to choose from on the web. Well-known companies like Campaign

Monitor, MailChimp and Zurb, as well as generous individuals in open source, provide CSS inliners for free. Most just require you to paste HTML with a <style> onto their site. For a more permanent solution, some tools can be incorporated directly into your project as a plugin.

Alternatively, always writing your styles inline typically allows for quicker prototyping, which will also save you time. When your styles are inline throughout your coding process, it's easy to change them right in the HTML and immediately see how the email rendering is affected.

When debugging email code, keep in mind inline styles are highest in CSS hierarchy, with the exception of styles that use !important . So when you're trying to find the origin point of styles, you'll have to check your external style sheet, <style> in HTML, and inline styles, then do a quick search for !important in each of those locations.

GOING RESPONSIVE

Responsive web design depends heavily on media queries. These target different media types, widths,

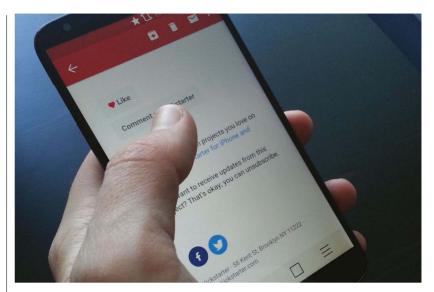
Because of inconsistent <style>, style>, head> support, inline styles are necessary

device pixel ratios (for high-resolution) and more. While not completely useful with email, media queries are supported on iOS 7, iPad, AppleMail, and webmail clients.

There are several breakpoint widths associated with specific devices, which you can use to your advantage if you want specific content to be shown or hidden at different times (CSS Tricks has a great article on this: netm.aq/breakpoint-269). Again, don't forget to take note of which email clients do or do not support media queries.

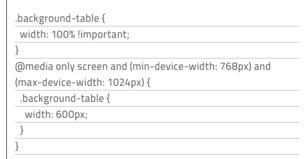
When designing responsively, good practice means pairing media queries with fluid layouts. Fluid layouts use percentage-based widths so content flows to fit smaller screens. Often in email design, you'll see a max-width in px dimensions paired with a width of 100%. This strategy confines desktop email clients to a max-width of 550-600px, but allows the email to fill the screens of mobile devices that are under 550-600px.

As mentioned previously, Outlook 2007, 2010 and 2013 ignore max-width and min-width. You'll therefore need a bypass in order for emails to



Thumb size A responsive email with great spacing, readable text, and button sizes that meet the minimum touchable area for this device

display correctly. This bypass employs fluid layouts for most clients and a fixed (instead of max) width within a media query for widescreen desktop clients. This is another great example of pairing fluid and responsive layouts.



Jennifer Wong has created a customised wrapper template for responsive emails. Check it out at netm.ag/template-269

Often developers say that !important should never be used. However, inline styles overwrite styles contained in media queries. In this case, the only way for the styles in a media query to take precedence over inline styles is by using !important .

@media only screen and (max-width: 480px), (max-devicewidth: 480px) { .header { height: 20px !important; <h1>Cats Totally Rule</h1>

Note that if you decide to use !important on inline styles, Outlook 2007 will completely ignore styles assigned that way.



★ FOCUS ON

It's dangerous to go it alone. Tons of great resources like blogs, testing suites and templates are there to help you on your way. Reading email-focused blogs is a great way to keep up to date on the latest trends and workarounds. Testing is essential to the viability of responsive emails. If you lack experience designing emails, pre-made templates can be a great starting point. Here's what I recommend:

BLOGS

Style Campaign (*stylecampaign.com*) – This email creative agency run by Anna Yeaman produces amazing, practical content.

Campaign Monitor (campaignmonitor.com) - An email marketing campaign solution, this has over 10 years of content and maintains a thorough, up-to-date CSS-support webpage.

Litmus (*litmus.com*) – Litmus employs several content creators who constantly publish what's new in responsive email.

TESTING

Litmus - This has the largest desktop and mobile client coverage, including Lotus Notes and Blackberry, and includes access to its active Community forums.

Email on Acid (emailonacid.com) – This offers extensive web client coverage, even including sites like Mail.ru, and includes tips and tricks.

Targeted.io (targeted.io) - The newest and most minimal, but a huge plus is its affordable pricing.

TEMPLATES

Ink (zurb.com/ink) – Creators of responsive framework Foundation, Zurb has released these responsive email templates. Note that lnk doesn't support Outlook 2007, 2010 or 2013.

Campaign Monitor – As mentioned above, it also provides over 100 email templates for free.

MailChimp (mailchimp.com) – Another email marketing campaign solution, which provides free email 'blueprints'.

EMAIL QUIRKS

Email clients do a lot of weird things. Some of these you can prepare for. For example, many clients automatically hide images and require users to enable the display of them. To combat this, it's a great idea to include an alt attribute and/or background-color style for each of your images. That way, at least some content is temporarily displayed for the users in place of your images.

Other times, email client quirks are completely unpredictable. For instance, white space in your email code can sometimes affect rendering. I once noticed that images that were displayed in Gmail included a thin grey border. I could not for the life of me determine the cause. Eventually, I discovered that removing the white space

It's a good idea to include an alt attribute or background-color style to your images

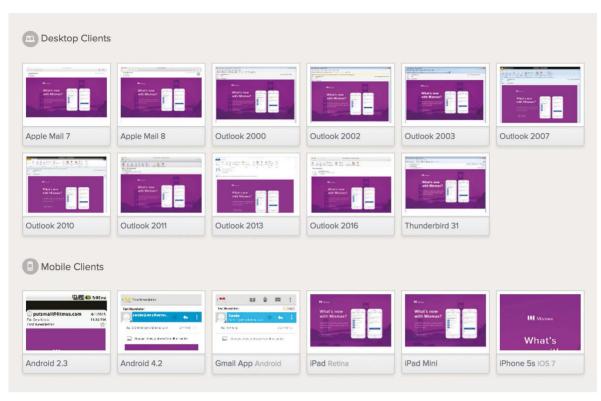
between the and surrounding <a> made that grey border disappear.

<!-- versus -->

<img src="http://mochimachine.org//images/logo.png"</pre> alt="MochiMachine Logo">



Thorough testing Style Campaign's impressive 34-piece device library, proving that its advice and posts are battle-tested and accurate



RESOURCE

Campaign Monitor's CSS Support page for email clients is forever a guiding light in responsive email design: netm.ag/support-269

Testing suite The results of a test displayed in Litmus, a comprehensive email testing suite

In the middle of my email design, I noticed that Gmail was causing another problem with my <a> elements - it wasn't rendering my links with the custom colour I'd implemented. I remembered that Gmail does not support <style> or <link> in the <head> . Since I had decided to overwrite the default link colour, that meant I had to add a color style to each and every <a> within my email code.

TESTING, TESTING, TESTING

Where A/B testing your emails is important for determining content and evaluating user interaction, comprehensive testing of email rendering is necessary for ensuring users can even view your emails. Email testing suites show how your emails render across several clients at a glance. All you do is send an email to their system, and they display all the results on one page. They also often cover spam and plain text testing.

Testing suites go a long way in helping you check your email rendering, but not quite far enough. While they typically include at least one version of most email clients, they often miss popular mobile and desktop operating systems, which can heavily affect rendering, even within the same email client. They also take a long time to update with the newest clients.

I highly recommend testing on live devices completely or at least to supplement any email

testing suite. You can quickly build up a device library and update faster than an email testing suite might. If you purchase all of your own devices, there's an added benefit of being able to test web pages across mobile browsers, operating systems and devices.

Personally, I own and use a Samsung Galaxy S3 running Android Jelly Bean (v4.3). To my knowledge, no email testing suite includes this version of Android, so I'm often sending myself emails. I test Android Email, Gmail and Inbox on my personal device.

Even Android KitKat (v4.4), which has a market share of 41.4 per cent (as of April 2015, according to Android Developer Dashboard), goes untested in popular email testing suites. These are just a few examples of what you might be missing by only testing with an external source.

ONWARD INTO THE FUTURE

Everything I've talked about in this article will help get you started on your responsive email design journey. My advice here will provide a great foundation upon which to build more complicated emails. But this is just the tip of the email iceberg. To keep up to date on all the latest trends, be sure to do plenty of your own testing, pay attention to the release of new email client versions, and check out the resources I provided.





ABOUT THE AUTHOR

w: affinity.serif.com

t: @MacAffinity

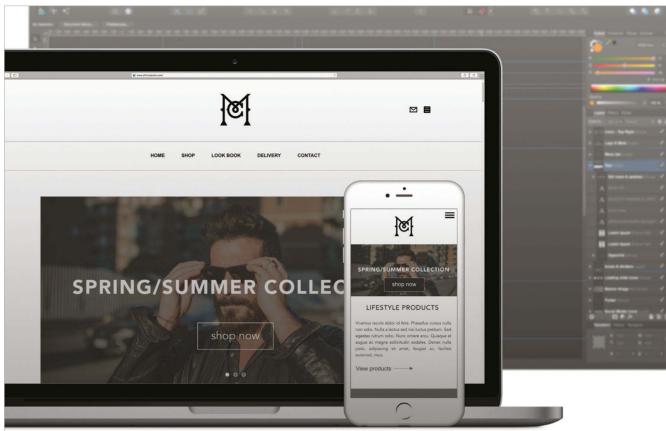
job: Product manager, Affinity

areas of expertise:

Customer engagement, design and DTP

q: what's the strangest thing you've ever eaten?

a: Seychellois octopus curry (in Germany)



*WEB GRAPHICS

CREATE A LOGO WITH AFFINITY DESIGNER

Affinity's **Dale Cook** walks through how to use this popular new design software to create, adjust and export a unique logo

Affinity Designer (affinity.serif.com) is a fresh new design and illustration app that burst on to the scene last year and immediately won Editors' Choice, before becoming a runner up in the contest for Best App of 2014. Here, I'll walk you through how to create a unique logo. I'll cover the basics of the app, including working with lines and shapes, laying out a page, and exporting various elements as efficient web graphics.

Affinity Designer is Mac-only for now, but that may change once the developers finish up the suite

of tools (which will also include Affinity Photo and Affinity Publisher). Its creator, Serif, has promised free app updates for another 18 months or so and is engaging with pros on its forum, so there's also plenty of scope to get your favourite feature or UX behaviour into an upcoming update.

Before you get started, download the 10-day Affinity Designer trial from netm.ag/designer-269 and install it (or dive in and buy it from the Mac App Store). Affinity Designer works on OS X 10.7.5 or newer and only requires a Core 2 Duo processor.



Dale Cook has created an exclusive screencast to go with this tutorial. Watch along at netm.ag/ affinityvid-269

Launch the app and create a new doc from the startup panel. As we're designing a scalable vector logo, the document type and pixel size aren't critical - we've chosen 'Web' at WXGA (1280x800) for ease. To prepare for the design, turn on Snapping and select the UI design preset from the drop-down list, which also enables Force Pixel Alignment mode. You should also enable Guides and Rulers from the View menu.

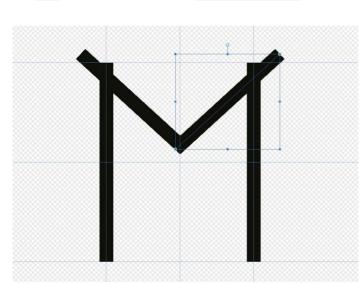
Select the Pen tool from the left, and choose the 'Line Mode' option on the top Context toolbar to restrict creation to straight lines. On the Stroke panel at the right, set the stroke weight to 9.6pt (or type 40px, and it will convert for you). To have stroke weights displayed in pixels rather than the normal points, uncheck 'Show Lines in Points' in Affinity Designer > Preferences

Click and hold, starting from above and left of centre of the design area, holding Shift to constrain the line to vertical, and drag downwards. Release to draw the stroke (ours is 580px tall). Set the Cap type to 'Butt' to give a flat end. Switch to the Move tool (V), hold cmd, then click and drag your line to create a copy, moving it to the right. Hold Shift to keep the copy aligned.

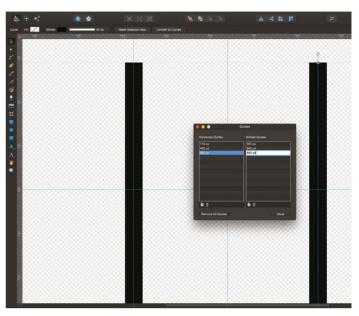
It's evident now that some layout guides will help keep the growing number of elements neat. Our first vertical stroke is at X=425 and you can position the second by eye, or add guides by clicking on the rulers and dragging right or down. To suit our logo, we're adding horizontal guides at 110, 400, 690px and vertical guides at 425, 640, 855px using View > Guides Manager.

Position the right line over the guide at 855px - it should snap nicely into place. Select the Pen tool again and draw a diagonal line from the top-left of the logo to just above the middle of the logo space. Switch to the Move tool (V) again, hold cmd and drag to duplicate this as we did for the vertical line. Flip it using the 'Flip Horizontal' button on the top toolbar. Position it to the right.

You can edit these strokes by moving end nodes using the Node tool (A). If you're happy, select both the diagonal lines by Shift-clicking them, then choose Layer > Expand Stroke . This



Step 5 Use the 'Flip Horizontal' button to duplicate the first half of your 'M'



Step 4 Layout guides will help you keep things neat and exact

converts them to rectangular shapes that are easier to select and align. Zoom in to the point of the 'M' and use the Node tool again to position the lowest corners together on the centre line.

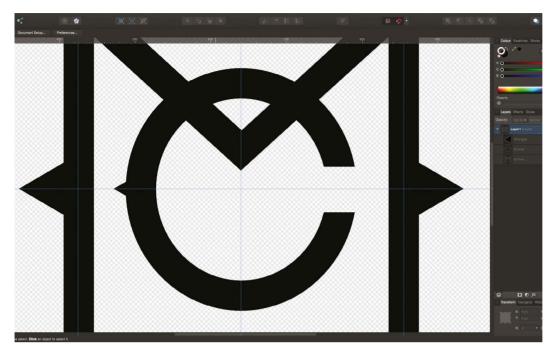
Time to embellish the 'M'! Click on the Triangle shape on the left toolbar to select it (more options become available if you hold down), then click and drag to draw a triangle 130px wide by 115px tall. Fill it black via the Colour nanel and remove the stroke Position at the bottom-left of the 'M', then duplicate it for the right. If you haven't yet saved your design, hit cmd+S and name your file.

Duplicate the triangle again, then use the Transform panel at the lower right to set its size to 70px wide by 60px high. Rotate 90° using the shape's rotation lollypop, holding Shift to constrain. Position one triangle at the left middle of the first stroke, duplicate and flip to position another on the right stroke. 'Expand Stroke' on the two vertical lines, then cmd+A to select all, then join the shapes using the 'Add' button at the top right.

*EXPERT TIP

GO BETA

Instead of running the regular Affinity Designer trial based on the Mac App Store version, you can install the latest beta from netm.aq/beta-269 (this also works as a standalone trial for the same 10 days). It's fully featured and gives vou access to the latest developments and fixes. **Affinity Designer owners** can use customer betas without the trial limit.



Step 9 The 'C' that sits inside our 'M' is created using an ellipse with a rectangle subtracted from one side

Now we're going to create the 'C' that will sit inside our 'M'. Create an ellipse 265x280px, with no fill and a 40px stroke. Centre it in the design area, then convert it to a shape (Layer > Expand Stroke). Next, create a rectangle 60px high and position it over the mid-right of the ellipse (this will form the break in the 'C'). Shift-click to select both objects and cut the rectangle from the ellipse using the 'Subtract' button. I've also added a small triangle on the letter's left side.

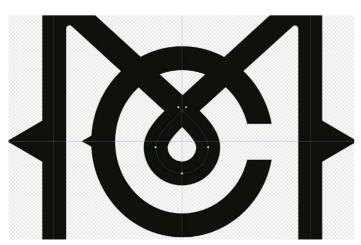
If you're feeling up to some curve manipulation, we can add some interest to the middle point of our 'M'. Add a small circle with 40px stroke and convert to curves. Break the curve at the top node and move the loose ends to make a teardrop shape that meets the 'M''s arms. Some practice with curves can be had at bezier.method. ac. You can also add a neat 5px rounding inside the top of the 'M"s upper points using the Corner tool - select both the nodes, then click and drag to smooth.

Now we want to save your file again and export the logo as an SVG so we can easily use it in other projects. Press cmd+A to select everything, go to File > Export and choose 'SVG' from the icons at the top of the Export dialog. Choose 'Selection without background' from the Export dropdown, then click 'Export'. Now you just need to give your logo a name, choose a folder (remember where it is!) and hit 'Save'. Close your design from the File menu.

Over the next few steps, we're going to use the techniques you've already learned to mock up a page around your logo. Create a new design, same size or larger than before (ours is 3840x7400px) and we've unchecked 'Transparent background'. Once open, ensure Snapping is enabled, choosing the UI preset again. Next click the 'Place Image Tool' button, select your logo SVG, and drag it out at the middle top of the page. Ours is roughly 260px square, but it'll look perfect at any size!

Choose whether to start with guidelines or content first (and guidelines afterwards), to kickstart your layout. Our guides define a repeating area that includes a background rectangle, one large and three small images, product information, and button regions. You can drag these guides on to the page from the rulers.

Time for some layout tips! To quickly centre-align, right-click an object and choose Alignment > Align Centre . Or add Alignment (and Distribution) controls to your upper toolbar using drag and drop - edit the toolbar using View > Customise Toolbar... to achieve this. Add text using the tool at the left, either

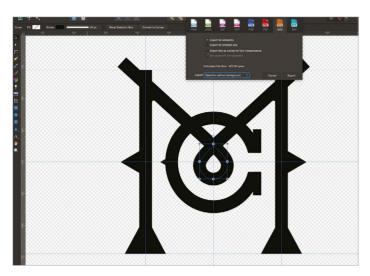


Step 10 Add interest to the centre of the logo with some curve manipulation

*EXPERT TIP

GET CREATIVE

There's far more to Affinity Designer than the geometric logo we created and our grid-based web page mockup. Affinity Designer boasts advanced layers and groups, multiple vector and raster masks, adjustments, blend modes, retouch tools, and many non-destructive techniques. Check out the wide array of possibilities over at vimeo.com/MacAffinity where you'll also find videos suited to web designers, plus you can ask questions at affinity.serif.com/forum.



Step 11 Export your logo as an SVG to make it easy to use in other projects



Step 13 Mock up the rest of your page as per your guidelines

scalable 'Art Text' or traditional 'Frame Text'. Use Hex colours by changing the Colour panel's menu to 'Sliders' and the model drop-down to 'RGB Hex'.

Once you're happy with your page mockup, it's time to select some elements to export. To select multiple product images, cmd+click each one in the Layers panel or Shift-click each one in the design. Now switch to the Export persona using the button in the

top-left. In the Layers panel, click 'Create Slices'. You can adjust slices to be any size in any position.

In the Slices panel, uncheck everything apart from your selected images. Choose whether to export at 1x size, 2x, 3x (or all three). Look up to the settings in 'Export Options'. We're outputting JPGs at High Quality, using a Lanczos3 resampler and happily ignoring ICC settings (but they're there if you need them!). Now click 'Export Selected' at the bottom of the Slices panel, pick a folder, and click Export.

That's it! You've seen some creation tools, pixel-perfect shape manipulation, layout assistants, exporting as SVG, creating export areas from design elements, and exporting optimised graphics. There are plenty of ways to make Affinity Designer fit your unique workflow – start using it in your own way to see what fits! n

*EXPERT TIP

LOOK BACK

Wouldn't it be great if you could revisit old design files and undo something from a previous editing session? Or flick through old editing steps to see how something was achieved? Even if someone else created the design? It's built into Affinity apps - just enable 'Save History With Document' under the File menu.



Step 15 Select items to export as web-friendly Slices in the Export persona





ABOUT THE AUTHOR SHANE

SHANE OSBOURNE

w: wearejh.com
t: @shaneOsbourne

job: Web developer, JH

areas of expertise:

JavaScript, Node.js, frontend tooling

q: what's the strangest thing you've ever eaten?

a: Although I'm a veggie now, I once ate a caramelised Scorpion whilst visiting my father in Thailand *TESTING

TEST YOUR SITES ON MULTIPLE DEVICES

Shane Osbourne explains how BrowserSync helps you test your sites easily and effectively on multiple devices and browsers

There's no denying that, for a growing percentage of users, the primary means of internet access is some form of mobile device – be it a smartphone, tablet, notebook or anything in-between. As designers and developers, you'll already be aware that these devices may or may not be touch enabled, have varying screen sizes and pixel densities, offer an unknown (at least until page load) set of supported features and may be connected to any type of network ranging from an extremely slow EDGE connection to a super-fast Wi-Fi connection.

You should also be well aware that testing your website on as many of these actual devices as possible is the only way to ensure your designs and code work smoothly and correctly for as many people as possible.

BrowserSync (browsersync.io) is a free, open source project, which runs on Windows, Linux and Mac OSX. It was designed from the ground up with exactly this type of multi-browser, multi-device testing workflow in mind. As such, it makes the whole process a breeze.

BrowserSync has many amazing features, but there are three fundamental ones that directly address the most common pain-points for testing:

- 1 Accessing a localhost website on all of your test devices whilst in development
- 2 Auto-reloading all devices when you change files
- 3 Synchronising interactions across all devices

I'll take a look at each of these key features in turn in this tutorial.

SETTING UP

First up, install BrowserSync as per the guidelines on *browsersync.io*. You'll also need to set up a new folder, create an 'index.html' file and a CSS folder containing the file 'style.css'. The contents of 'index.html' would look something like this:

<html lang="en-US"> <head> <meta charset="utf-8"/></head></html>
Treas.
<meta charset="utf-8"/>
<title>BrowserSync example</title>
k rel="stylesheet" href="css/style.css"/>
<body></body>
<h1>BrowserSync example</h1>



As that almost anything you can imagine can be built entirely with JavaScript these days (thanks to the browser and Node.js) I'd recommend it as a top language to learn!

ACCESSING A LOCALHOST WEBSITE

BrowserSync has the ability to create a mini server from any folder on your computer and expose that server over vour Wi-Fi network. On the command line, navigate into the folder that contains the 'index.html' file and run the following:

\$ browser-sync start --server

You'll be presented with two URLs: a 'localhost' address and an IP-based address. The localhost address is the one you typically use on the same machine that you develop from, while the IP-based address is for any device that's connected on the same Wi-Fi network.

Using these two addresses, you now have access to your website on any phones or tablets you can get your hands on (as well as your main development machine). This means you can spot and fix issues with your layout, CSS and JavaScript as early as possible in the development process.

BrowserSync was built with a multi-browser, multi-device testing workflow in mind

If you're in a situation where you already have a server setup (such as WordPress running on MAMP/WAMP, for example), then you would replace the --server option for --proxy and provide your existing URL:

\$ browser-sync start --proxy http://local.wordpress.com

AUTO-RELOADING DEVICES

Now you can easily access your work-in-progress website on any device connected to the same Wi-Fi network. However, you'll quickly realise that this type of workflow actually introduces a new issue: viewing the latest version each time you change a file requires you to reload all browsers on all devices manually. This is where BrowserSync's built-in File Watcher comes in handy. Not only does it reload all browsers automatically when it notices a file change, but it can actually inject CSS changes directly, without even reloading the page.

Building upon the previous server example, you can provide a --files flag with glob patterns that match your project files. By doing this, you are instructing BrowserSync to watch a subset of files for changes and, when it sees a change occur, either

perform a hard reload or inject changes into all connected browsers automatically.

\$ browser-sync start --server --files="*.html, css/*.css"

With the above command, any changes to 'index. html' will cause every browser to perform a hard reload, whereas changes to 'css/style.css' will be injected into the page without reloading it. Now you can go ahead and start coding your latest creation - each time you hit Save, you'll be able to instantly see the changes on each and every device simultaneously.

Once you've experienced the level of efficiency this workflow affords - with its instant feedback and shorter iteration times - you'll find it almost impossible to believe you ever managed to work without it!

SYNCHRONISING INTERACTIONS

The final piece of the awesome-workflow puzzle is the synchronisation of actions across all connected devices. We realised early in the development of BrowserSync that being able to scroll inside one browser and see that action mirrored in all others is not simply a cool party trick, but actually an essential counterpart to the auto-reloading feature. The Action Sync feature (enabled by default) will copy scroll position, clicks and form inputs from one browser to all of the others that are connected.

A perfect example of why this is useful would be a mobile slide-out navigation. You could have your site open on a multitude of devices that all fall below a breakpoint that causes the navigation to be hidden. Now, when you tap or click the 'menu reveal' button on any of the devices, that same click will be replayed across them all - thus revealing your navigation and highlighting any layout or CSS bugs that may be different across platforms.

OTHER HELPFUL FEATURES

The three features we've just looked at form the basis of BrowserSync, but that's just the beginning. By accessing the browser-based UI that comes bundled with BrowserSync, you'll find a range of additional features. These include 'remote debugging' (like Chrome's 'inspect element', but for all browsers), 'URL history' (records your test URLs so you can push them back out to all devices with a single click), 'sync customisation' (toggle individual sync settings to create your preferred test environment) and 'URL tunnelling' (create a secure public URL to share your local sites with any internet-connected device). So get stuck in!

brand impact awards.



Submit your best branding to the Brand Impact Awards

The Brand Impact Awards is a global contest from Computer Arts to celebrate creative excellence in branding design

- Branding will be judged according to the market sector it was designed for
- ☐ There are two streams: branding programmes and branded campaigns
- Our panel features leading creatives on both agency-side and client-side
- As well as quality, judges are looking for consistency across all touchpoints

Find out more and enter now at

www.brandimpactawards.com

Or tweet @ComputerArts using #BrandImpactAwards





ABOUT THE AUTHOR

CLARK WIMBERLY

w: clarklab.com t: @clarklab

job: UX designer

areas of expertise:

Design, development, and that sticky area where things meet

q: what's the strangest thing you've ever eaten? a: Rattlesnake, it tasted like frog

* HEAD TO HEAD

COMPASS VS BOURBON

Variables and mixins and styles, oh my! Clark Wimberly explores the differences (and similarities) between Compass and Bourbon

COMPASS

Compass (compass-style.org) is a CSS authoring framework. It's built on Ruby and maintained by Chris Eppstein, who's on the main Sass team. Installation is a simple command, to create a project. If GUI is more your style, there's a Compass app available.

BOURBON

Bourbon (bourbon.io) is a Sass mixin library. It's built purely in Sass by the team from Thoughtbot, who maintain not only Bourbon but a family of related packages. Installation basically involves grabbing the files and @importing them into your Sass project.

SETUP AND USAGE

While Compass helps you write CSS, it's definitely a Ruby library. This enables users to tackle more complex operations, like creating sprites at compile or checking CanlUse.com for the latest capabilities.

Bourbon is a mixin library composed entirely of Sass code. This means Bourbon can run in a Ruby-free environment, with compilers like LibSass. Some would argue it's faster, but that's a question for another day.

GRIDS

While Compass doesn't include a grid system per se, there's a great selection of third party solutions. Susy, Zen Grids and Mueller all offer highly flexible, responsive grids. Setup is simple, then you're right back into Compass.

Grids in Bourbon are handled by Neat, one of the sister libraries offered by Thoughtbot. It's a responsive system that works mostly with mixins (keeping your HTML semantic and clean), and everything is fairly customisable

TYPOGRAPHY

To manage type size, spacing and more, Compass includes a vertical rhythm, powered by your variables. It allows you to establish a baseline at the root of your build, then manipulate with mixins for things like lineheights and borders.

For typographic scale and scaffold styles, Bourbon relies on Bitters, yet another member of the Bourbon family. Bitters aims to provide a jump-start on projects, with a variable-based, modular scale for most basic elements.

COMPILING

This might sound silly, but one of my favorite features of Compass is how simple it makes compiling. A single compass --watch command will start polling the files you've specified when creating the project.

Because Bourbon is a mixin-only library, it relies on the vanilla Sass compiling functionality. A slightly more complex command is required (or the use of some app to compile your Sass for you).

a point and click affair. **NEW TO BOTH?**

If you don't like the command line, both

libraries are available in a number of desktop

apps that make things

GET APPY

FACT FILE

If you'd like to tinker with either Compass or Bourbon, online tools like CodePen make it easy to get started. You're just a few clicks away from including either library.

Offering variables, mixins and more reusable patterns than you can shake a stick at, both Compass and Bourbon are more than suited for production work. Because Compass relies on Ruby, it can offer more complex functionality and logic (like file-creation during spriting). Bourbon, basically a giant Sass include, may appeal to a lighter, more portable build.







ABOUT THE AUTHOR STEVEN TREVATHAN

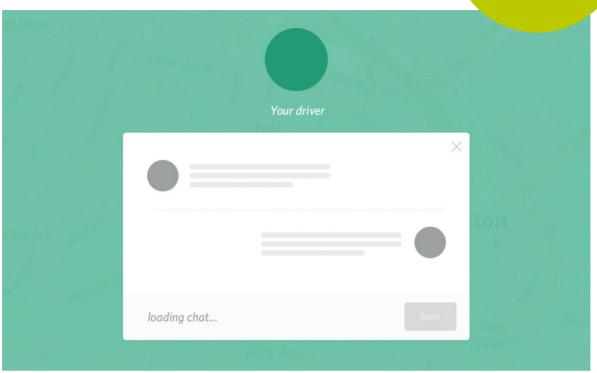
w: dockyard.com **t:** @strevat

job: Partner and creative director, DockYard

areas of expertise:User experience design

q: what's the strangest thing you've ever eaten?

a: When I was in second grade I used tape to collect small ants off the floor of the classroom and then ate them



*EMBER

DESIGN AN EFFECTIVE SPA WITH EMBER

Steven Trevathan on how solid exploration and an awareness of design patterns are key to creating a great single-page application

So you're about to create your first Ember application. Ember (emberjs.com) is a framework for creating web applications, and you chose it because of its speed, modularity, extensibility, and how easy it makes managing your codebase as it grows. Your choice in technology is super-sound, but you don't know where to begin with the design.

That's OK. I can help. Knowing your audience, the products they use, and any experiences similar to what you're creating is the foundation to designing a successful product. That knowledge will hint at the design direction you want to go in.

In this tutorial, we are going to pretend we're redesigning a farm share delivery application called 'SproutPass' (forgive me for the awful name) for web and mobile web. The business stakeholders want the

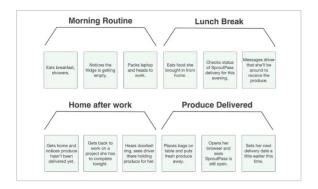
app to enable users to select and request delivery of farm produce, text the delivery driver, and monitor the environmental impact of their transaction.

MEET YOUR USERS

We'll begin assessing the experience by doing as deep a dive into the mind of the user as possible. Learn who the users are, what experiences they have in purchasing farm shares, and why they do it. Follow tangents and let the answers flow naturally. This can be challenging if you're not exactly the social type (I sure didn't use to be), but it's a step you can almost never go without – and it's best to do it in person if at all possible. You don't know what you don't know, and talking to real users will lead you to discover those things very quickly.



Steven Trevathan has created an exclusive screencast to go with this tutorial. Watch along at netm.ag/embervid-269



Day in the life This simplified map details actions Margaret may take at

Let's say we interviewed five users and found that they shared some major characteristics:

- Economically considerate
- Often miss produce pick-ups
- Care about their health and the planet
- Care about local businesses and farms
- Started using SproutPass because produce deliveries would keep them well stocked
- Found the UX confusing and didn't know how environmentally efficient deliveries were

Do user research in person if at all possible – you don't know what you don't know

Once we've learned who our users are, we can start to consider how the product we're redesigning might fit into their daily lives. At DockYard, we like to create journey maps that describe in an abbreviated way what a particular user is experiencing over the course of their day. This helps us envision many possible touchpoints for our application.

Let's do this for a user named Margaret. In the journey map above, we can see that Margaret has a few points in time where she worries about produce: at breakfast when she looks inside her fridge, while she's eating her lunch, and once she has returned home, near delivery time.

MENTAL MODELS

Once we've identified the places in Margaret's journey where our app can help the most, we can start building a mental model: her mental image of a designed object and how it may be interfaced with. We'll start by thinking about analogous experiences to the problems we're going to solve for Margaret.

★ IN-DEPTH

LOW-TECH PLANNING

At DockYard, there are a number of really great low-tech methods we employ to help us rapidly get an understanding of content hierarchies and structure. I'll take a look at two of these now. For more information on these methods and other UX practices, you should check out dockyard.com/blog.

Card sorting

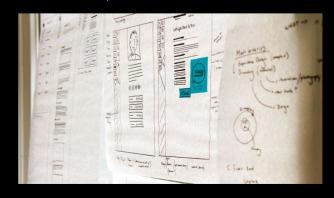
Sometimes the structure for content can seem straightforward, but that's exactly what easily misleads us. When you put a highlevel breakdown of your content onto individual sticky notes or index cards and ask someone to sort it into groupings and hierarchies that make sense to them, you will be amazed at the different ways people build structure.

People come to know content in different ways. Sometimes the way in which they'd sort content can be especially unique because of a particular tool they use to work with similar concepts.



Hand sketching

Not jumping straight into a digital program allows us the freedom to err and learn from our mistakes rapidly. We can ask questions and communicate ideas while sketching, compare the different solutions we've come up with for solving the same problems, and generally not waste a ton of time on rendering a failing concept in Sketch or Photoshop





★ FOCUS ON

TOOLS OF THE TRADE

Designing for single-page applications throws up certain challenges. Here are some of the common ones:

- A web connection will most likely be necessary for the initial load of your content
- The application must feel web-native (fast and respectful of standard browser behaviour)
- The application must work offline
- User context is not constant (connection can be shaky, device may change)
- User errors must be easily resolvable

Some of these may seem obvious, but what surprises a lot of people is that Ember can be used in an environment where there is no need for internet connection. In some cases that might even be a desktop application (netm.ag/desktop-269)

Approaching these challenges from scratch every time you make a new single page application seems a bit unnecessary. Ideally, you want to create a solution that fits well in all cases - perhaps with some visual changes at the end-user level.

To this end, our team at DockYard is creating a library of Emberbased design patterns that can help standardise the way you solve these problems. We're calling it Tools of the Trade (toolsofthetrade. dockyard.com). Subscribe to the newsletter to be notified of the initial release. Please let us know if you'd like to take part - you can tweet us at @dockyard to get more information.



Tools of the Trade

A library of design patterns for Ember applications.

Tools Our method and pattern library will be available very soon

Do this by being specific when identifying a likeness that the user will interpret your product by. 'Like a desktop application' is not a useful model. 'Like a chat program' is better, as it's a comparative use of the application, rather than how the technology responds. The key is to define ways the user will come to understand the application.

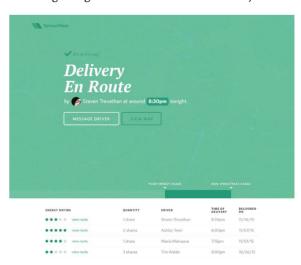
Let's say Margaret uses an app to monitor her running performance, gets lifts around town with Uber, and uses Facebook Messenger to communicate with friends and family. These are some anchors you can use to base her assessment of SproutPass.

So let's spin this on a description of SproutPass. What if we say: 'SproutPass is a marketplace, connecting local farmers with eco-friendly consumers'? That describes what is happening with the app, but it doesn't provide a foundation to design for. We want something that gives some indication of how the UI might appear, and what Margaret might more readily understand. Maybe 'SproutPass is like a dispatch management service for produce delivery'. That's way better. We can now start to picture what the UI might be.

From these mental models, we may be able to derive design patterns for the app. In the case of SproutPass, maybe that's the map and car paradigm from Uber for monitoring a shipment. Perhaps there is a history of shipments, their environmental impact as compared to driving and picking it up themselves, and screen similar to a text message or email for communicating last minute notes to your driver.

DESIGN PATTERNS IN EMBER

Once we've done the appropriate research required to fully understand the landscape in which we'll be sculpting our application, we can move on to the design stage. Based on the user's context,



Design patterns This design focuses only on the indicators necessary for Margaret's delivery, with simple ways to access more information

we're able to identify some design patterns we may use as a general mould for our application.

Single-page web applications have their own technical challenges and we have design patterns for dealing with those as well. Let's look at some methods you can use to confront these challenges.

Be fast ...

Use SVGs or sprites where possible, compress images, minimise style sheets and JavaScript, limit your font usage (doing so will often improve your design as well), and where possible aim to reduce the total number of requests you're making to the server. In most scenarios you want to allow users to receive a fully rendered application as fast as possible, even if their connection is slow.

... but seem even faster

Skeleton UIs are a way for us to create an experience that feels faster than it actually is. We do this by creating a bare-bones version of the content to

Skeleton UIs help us create an experience that feels faster than it actually is

come, which is displayed to the user while the actual content loads. Skeleton UIs can take different forms, but here we'll use basic shapes that represent the content to be loaded. This works as a confirmation of progress. When Margaret taps to message the driver, instead of sitting on a blank page until content loads, she gets a sense that the system is working. The experience will feel like it is rolling out to her.

The Ember skeleton add-on enables you to experiment with creating your own skeleton UI. In the README (partly represented below) it shows how you can display fast-loading temporary images in place of the final, slow-loading image. Please note that the library relies on addEventListener and removeEventListener, which require IE9+.

First off, you need to install the add-on:

ember install ember-skeleton

Use the component in your templates:

{{skeleton-img src="/path/to/large/image.png" tmpSrc="/path/to/small/placeholder.png"}}

The workflow is as follows:





1 The tmpSrc image will be loaded first

- 2 Once complete, the src image will attempt to load
- 3 If the src completes, this will be displayed
- 4 If the src does not complete successfully, the tmpSrc will remain
- **5** If an optional errorSrc is provided, that image will be displayed if src doesn't complete successfully

a basic 'ghost' of content that will replace it. This can be entirely CSS

Left The skeleton shows

Right The skeleton has been replaced with actual content. Note there is more content than represented by the skeleton

For more on this, take a look at the GitHub repository accompanying this article (netm.ag/embergit-269). Here, you'll find advice on setting defaults, styling, deferred rendering and more. You can also see a basic example in action, with a link to toggle deferred rendering, at netm.ag/dererred-269.

Be kind, rewind

There are scenarios in which Margaret may make an error. Let's pretend she accidentally cancelled a delivery she meant to schedule. Allow Margaret to use hot keys like 'cmd+Z' and/or provide a clear undo button for her to reverse her action. Absolute accident prevention is ideal, but impossible. In the cases where users can make an error, they will.

Prepare to be offline perpetually

Internet connection is something we take for granted, and often applications are designed under the expectation that a request always has a response. Our apps need to be aware of the connection state and respond to it. Beyond that, offline mode can provide an avenue for someone with very little access to the internet in general to pull the data down in one location (where they have internet) and continue to run that app elsewhere (where they don't).

FINAL THOUGHTS

You are unlikely to nail your concept on the first try. It's important that you can test your designs continuously to ensure you're providing an application that is spot on. I recommend doing several design sprints (gv.com/sprint) to rapidly explore and test possibilities before burning too much time developing your app.



To get a more in-depth breakdown of mental models and learn about some other design patterns for your application, check out Steven Trevathan's talk at EmberConf: netm.ag/emberconf-269

A Fact-Finding Forest Trip to a European Paper Mill



100% more enjoyment 30% more forests



See the woods.. and the trees!

Win one of 30 European trips for two people to see sustainable forestry and paper making in action!

BLIPP TO ENTER or visit two sides.info/competition

No wonder
you ??
paper

Did you know that forests in Europe, which provide wood for making into paper and many other widely used materials, are 30% larger than in 1950? In fact they have been increasing by 1.5 million football pitches every year. †

Magazines are printed on paper from natural and renewable wood, which is great to know if you love reading your favourite magazine.

† World Forest Resources, 1953 and UN FAO Global Forest Resources Assessment, 2010

To discover some surprising environmental facts about print and paper, visit

www.twosides.info

Print and Paper.
The environmental facts may surprise you





* STANDARDS

ESTABLISHING WEB STANDARDS

Aaron Gustafson explains how an idea becomes a specification at the W3C

> When we're busy building stuff for the web, we don't get much time to ponder how the HTML tags we write and CSS properties we use come to be. I'm here to shed a little light on the way our standards become standards.

First off, the 'standards' created by the W3C aren't really standards, but are rather a collection of specifications that instruct browsers on how to implement certain language features, so when we use a certain HTML element, browsers display it in pretty much the same way. The term 'standards' isn't used by the W3C; what we think of as 'standards' are actually 'recommendations'. The term 'web standards' actually came from the Web Standards Project. Surprising, I know.

THE IDEA STAGE

Every new standard - ahem, recommendation starts as an idea. That idea can come from the W3C, a browser vendor or other company, or folks like you and me. The W3C's activities are organised into Working Groups, all of which function in their own unique way. Depending on where the idea fits in, it could surface on a mailing list, IRC, in a face-to-face, or possibly even on GitHub. From there, the Group discusses the idea and may opt to formalise it into a specification (also known as a 'spec').

WORKING DRAFT

The Working Draft (WD) is an initial stab at turning the idea into a spec. It maps out the feature's implications, dependencies and interfaces. Things are typically pretty rough when the WD debuts. As more Group members (and the general public) begin to comment, the WD is revised.

Some browser makers may test an experimental implementation of the WD, but they do so knowing it's likely to change. That's why we shouldn't use WD features. Once a WD has satisfied the Group's technical requirements ('Last Call'), it moves on.

CANDIDATE RECOMMENDATION

When a spec becomes a Candidate Recommendation (CR), there is a call for implementations. Interested browser makers implement the spec and provide feedback on how clear and complete it is. The public is actively encouraged to comment, with a set deadline for doing so.

Even though we are pretty far along in the process here, the Group could iterate on the CR. Generally speaking, CRs are pretty solid - any changes should be nip/tuck work. However, it is possible to have a CR demoted back to WD or abandoned (as a 'Note'). While it's unlikely a CR will change, exercise caution when using one.

PROPOSED RECOMMENDATION

Two independent, interoperable implementations are required for a CR to progress to the next step. The CR also must have addressed any issues raised in the public review.

Once a spec becomes a Proposed Recommendation (PR), a deadline is set for an Advisory Committee review. If issues are found, the PR could be demoted to a CR or even a WD again, but if everything checks out, the W3C will officially give it its blessing.

At this point, the specification is finalised and becomes something we can use in our day-to-day jobs. And there you have it: the W3C's process for creating a standard - er, 'recommendation'. In

Aaron Gustafson (@AaronGustafson) is a standards advocate at Microsoft and former manager of the Web Standards Project. He's also written several books, including Adaptive Web Design







ABOUT THE AUTHOR

MARTIN GONTOVNIKAS

w: gon.to

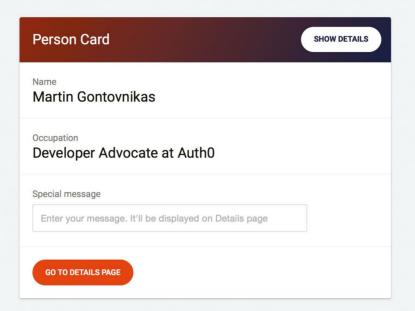
t: @mgonto

job: Developer advocate,

areas of expertise:

JavaScript, Web Platform, AngularJS, Node.js

q: what's the strangest thing you've ever eaten? a: Either bull's balls or kangaroo. But who am I to say that's weird?



*ANGULARJS

CREATE LIVE MOCKUPS **USING ANGULARJS**

Martin Gontovnikas explains how to use AngularJS to create navigable prototypes in a heartbeat - no tricky coding required

A web designer's job isn't only to make websites beautiful. They also have to think about the flow of information and how to make the web application easy to use. Often, they end up using a tool like InVision or Balsamiq to create a mockup that gives an impression of how the website will behave.

Even though these apps do a fine job, the output is still not a real website. This makes it difficult to validate and experiment with interactions, check how the design 'feels' and communicate to the relevant stakeholders how the final experience will play.

In this article, I'll be working with AngularJS (angularjs.org), an open source framework for building web applications, which can be used to create live, navigable mockups in a heartbeat. We'll explore how to navigate through different pages, how to

use data entered by the user in inputs, and take a look at animations and interactions, theming and adding behaviour to different HTML elements such as buttons.

SETTING UP OUR PROTOTYPE

The first thing we need to do is set up a new 'index. html' which will be the point of entry for our app. Besides linking to the specific CSS and JavaScript files we need for our prototype, we always need to reference jQuery, angular.js, angular-animate and angular-ux - in that order.

We also need some way of serving the directory where the 'index.html' and the other files will reside. For that, we can use npm command serve or python -M SimpleHTTPServer.



Martin Gontovnikas has created an exclusive screencast to go with this tutorial. Watch along at netm.ag/ angularvid-269

Now we need to set up the Angular application. This will be the only JavaScript we need to code to get our prototype running. The good thing is that it's just a case of copy and paste.

<body ng-app="prototype" ng-ctrl="MainCtrl"></body>		
// app.js		
angular.module('prototype', ['ngAnimate', 'ux'])		
.controller('MainCtrl', function(\$scope) {		
\$scope.data = {};		
});		

Our prototype app is configured. It's time to start learning what we can do with it now.

NAVIGATING THROUGH PAGES

The first thing all prototypes need is to be able to navigate through different pages. This is how we'll learn and validate how the information will flow and how the user will interact with our app.

We need to be able to navigate through pages, to establish how the information will flow

For this, we can use the ux-page directive from the angular-ux library that we added before.

 kbody>	
<ux-page home="" name="Home"></ux-page>	
<ng-include src="'home.html'"></ng-include>	
<ux-page name="Details"></ux-page>	
<ng-include src="'detail.html'"></ng-include>	
home.html	
a href="" ux-go="Details">Go to Details page	

In this case, we're creating two different pages. The contents of each of those pages are in separate files that we're including using the ng-include directive. Note that we added the home attribute to the ux-page that will be the main one (displayed by default). We could also put the HTML content embed in index.html. Creating new files for each page helps keep things readable and easy to maintain.

★ IN-DEPTH

HANDLING EVENTS ON ANGULARJS

For each event that HTML elements have, there's an analog ng-[event] directive. We can use these events to create some interaction in our prototype.

For example, if we wanted to show some text when somebody moves their mouse on top of a div, we could do something like:

<div ng-mousemove="showMouseOverContent = true"</pre> class="box">

This text is shown only on mouse move

</div>

You can also use events when handling form submission. Imagine your user is entering some information on a form and you want them to submit the information and display another piece of content after they press Enter.

For that, we could use ng-keyup as follows:

<input type="text" name="Username" ng-keyup="\$event. keyCode == 13 && showOtherContent = true" />

<div ng-show="showOtherContent">

This content is shown after the user presses Enter (keycode 13) on the input.

</div>

</form>

Other events we can use are ng-clic, ng-dblclick

ng-mousedown, ng-mouseup, ng-mouseover, ng-mouseenter ng-mouseleave, ng-mousemove, ng-keydown, ng-keyup ng-keypress, ng-submit, ng-focus, ng-blur, ng-copy, ng-cut

ng-paste



* RESOURCES

LEARN MORE



To learn more about this subject, it's worth exploring some of the following resources:

angular-ux

github.com/mgonto/angular-ux

This is a library that will help you create prototypes with AngularJS without touching a single line of JavaScript. You'll just need to add elements and attributes.

ngAnimate

netm.ag/docs-269

This Angular library makes it really easy to add animations to transitions on the page. It'll add certain classes to ng-if ng-show, ng-repeat and some others.

'Prototyping with Angular? Yes'

netm.ag/ngconf-269

This is a very good talk by Kelly Knight and Dirk Ginader at ngConf. It explores how Google approaches prototyping with AngularJS.

OTHER PROTOTYPING TOOLS

Framer.is

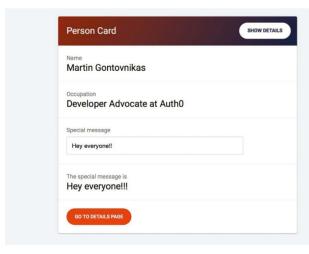
framerjs.com

This is an open source JavaScript framework for rapid prototyping. You can see a video explaining how it works at: netm.ag/framer-269.

InVision

invisionapp.com

If you need to create a really fast prototype and you don't care that the app is 100 per cent live, you can use InVision.



User input Here we see how the user can input information and how we can display it

Then, in 'home.html', we have a link that navigates the user to the Details page. For that, we're using the ux-go directive with the name of the page that we want to browse to. It's important to note that you must put the href="" in the link so it's clickable.

GETTING USER INPUT

Another important part of prototyping is being able to save some user information to display and use later on the app.

In order to do so, we can add the ng-model directive to any existing <input> element:

```
<!-- home.html -->
<input type="text" ng-model="data.message" name="name"
```

This means whatever the user types in the input named name will be saved in the message variable from our data. Remember to always save the inputted values into some variable inside data.

We can just display that information in any page of our prototype using {{}}:

```
<!-- details.html -->
The message entered by the user is {{data.message}}
```

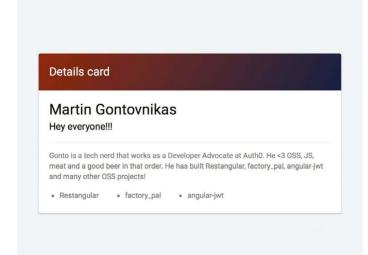
INTERACTIONS AND ANIMATIONS

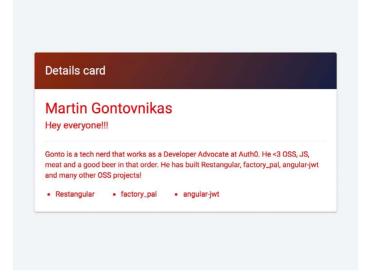
We also want to be able to see the how the interactions will flow on the website we're prototyping. This means we need to make our mockup show and hide content, and add animations for the transitions between the application's different states.

To show and hide part of the content of the page, you can use the ng-show and ng-hide directives together with some boolean (yes/no) values, which will indicate whether the content needs to be displayed or not.

<button ng-click="data.contentShown = true">Show content</button> <div class="content" ng-show="data.contentShown"> This is the content! Hide content </div>

First, we're using ng-click to handle the click event on the Show Content button. In this case, we're setting the variable contentShown to true. Then, using ng-show, we just say that the div.content will be shown if contentShown is true. ng-hide works the same way as ng-show.





We now want to animate how this content is displayed or hidden, to give a more complete impression of how the application will feel to the user. For that, we'll use ngAnimate. The classes ng-hide-remove and ng-hide-add are added momentarily when an element is shown or hidden respectively.

Therefore, we can write an animation for our div.content as follows:

We need our mockup to show and hide content, and animate these transitions

// Content is being shown .content.ng-hide-remove { // bounceIn keyframes come from animate.css lib animation: bounceln 1s; -webkit-animation: bounceln 1s; // Content is being hidden .content.ng-hide-add { animation: bounceOut 1s; -webkit-animation: bounceOut 1s:

You can learn more about adding animations in ngAnimate's docs page (netm.aq/docs-269).

If you want to animate page changes, you can use the same approach that we did when showing and hiding pages. We still want to use ng-show, but here will need to use a particular page's main div class.

THEMING

When you're prototyping, you want to try different themes (colours, typography, sizes and so on) at the same time, to see what works best.

For that, you can use the ux-themeable feature from angular-ux:

<div class="content" ux-themeable=""></div>
<h1>Title</h1>
This is some text

First you need to add the ux-themeable directive to the parent HTML element that you want to theme. Then, in order to change themes, you need to specify the theme name as a query parameter in the prototype URL.

For example, if you go to http://localhost:3000/#/?pa ge=Details&uxTheme=option1, the div.content will end up having an additional option1 class, which means we can style it as follows:

div.content.option1 h1 {	
font-size: 38px;	
}	
div.content.option1 p {	
color: red	
}	

FINAL THOUGHTS

With the techniques we've learnt today, we're ready to start creating our live and navigable prototypes. Once you start using it, I'd love to get some feedback about the process! Please tweet your thoughts and suggestions to me at @mgonto.

Left This is how the original Details page looks

Right This is how the Details page looks when we change the theme to red

In this era where creating a fantastic user experience is critical, prototyping has become essential. Learn why in this article by Jason Gube: netm.ag/gube-269





ANNIE CUSHING

w: annielytics.com
t: @AnnieCushing

Job: VP of marketing, YourTango

Areas of expertise: Web analytics and online marketing

q: What's the strangest thing you've ever eaten?

a: A beetle. It flew into my mouth while I was laughing, and I swallowed it before I realised what had happened * ANALYTICS

MEASURE YOUR SITES' MOBILE PERFORMANCE

Annie Cushing introduces some free Google tools that will help your sites perform better in organic search, and across the web

The release of Google's mobile-friendly algorithm update on 21 April sent many site owners and marketers scrambling to get their sites – or at least key landing pages – mobile-ready.

There are a few key facts you should know about this update:

- It is assessed on a page-by-pages basis, and in real time.
- Google's mobile-friendly assessment is a Boolean value: either it's mobile or it's not, there's no in-between.
- Google released a Mobile-Friendly Test tool (netm.ag/test-269) to help marketers assess if their key landing pages were mobile-friendly.
- Just the fear of Mobilegeddon resulted in a 5 per cent uptick in mobile-friendly tests in the two months prior to the update.

If a page passes the mobile-friendly test, it's rewarded with a snippet in mobile search results. According to Searchmetrics, the biggest losers of the update were Reddit, NBC Sports, Vogue, SongLyrics, and Business Week.

MOBILE-FRIENDLY DASHBOARD FOR GOOGLE ANALYTICS

According to BuiltWith (builtwith.com), more than 27 million site owners measure their sites' traffic using Google Analytics. So it makes sense to address

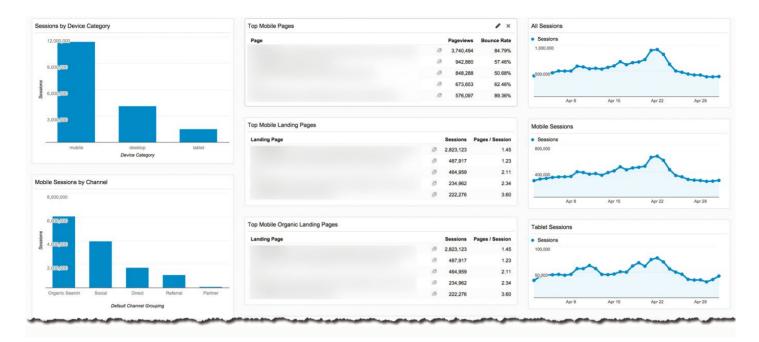
how sites running Google Analytics can measure their mobile traffic.

I created a Mobile Overview dashboard that owners can use to monitor their mobile traffic. It includes the following widgets:

- All Sessions: Formerly known as 'visits' in Google Analytics, this widget provides a gauge of your site's traffic to provide some context for your mobile traffic.
- Mobile Sessions: This enables you to monitor sessions from mobile devices only (this widget doesn't include tablet users).
- Tablet Sessions: Because tablet users typically behave more like desktop users than mobile users, it's useful to be able to evaluate this traffic separately.
- Desktop Sessions: If the bulk of your site's traffic is still coming from desktop in 2015, you may want to evaluate how effective your mobile experience is.
- Mobile Pageviews: This widget combines mobile and tablet devices.
- Sessions by Device Category: This is just geekspeak for the categorisation of traffic into three buckets: desktop, mobile and tablet.
- Mobile Sessions by Marketing Channel: With this widget, we're analysing traffic from mobile and tablet devices, broken down by marketing channels (organic, social, direct, PPC and so on).

VIDEO

Annie Cushing has created a video tutorial on how to use Chrome's Emulator tool, including how to update your device, replicate touch events and edit the page live. Find it at netm.ag/emulate-269



What channels is most of your mobile traffic coming from?

- Sessions by Device Category and Marketing Channel: This chart slices and groups your traffic by desktop, mobile, and tablet users. Then each of the bars in the bar chart is segmented by marketing channels. You will have to hover over slices to see individual segment values. There is no legend.
- Top Mobile Pages: Which five pages have received the most total traffic from mobile devices and tablets in a given time period?

'Mobile-friendly' pages are rewarded with a snippet in mobile search results

- Top Mobile Landing Pages: This table is a variation on the one listed above. It only looks at our top five landing pages from mobile devices and tablets (whereas the Top Mobile Pages report includes pages that may have been visited at any point during a session).
- Top Mobile Organic Landing Pages: This table lists your mobile MVPs in organic search. In the absence of organic keyword data from Google, you will have to turn to Google Webmaster Tools to see which keywords are driving this traffic.
- Top Mobile Social Landing Pages: Find out your MVPs in social. It's very important that you test

your site on various mobile devices to see what the experience is like for your visitors. See the section on Chrome's Device Emulation for tips on how to do this from your desktop device.

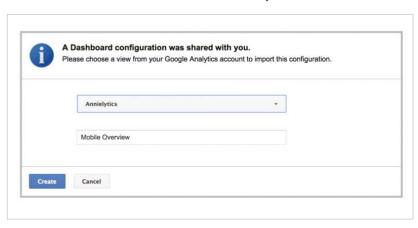
To access this custom dashboard from your Google Analytics account, go to bit.ly/mobile-dashboard and choose the view (formerly known as a profile) you want to apply it to.

GOOGLE'S MOBILE-FRIENDLY TEST TOOL

Google's Mobile-Friendly ranking algorithm update is designed to offer a boost to pages it deems to be mobile-friendly in its search results. This update focuses more on usability than other factors that were already baked into its algorithm, such as page load time.

This update also targets smartphone users and doesn't include tablet searchers. It's still very

Mobile dashboard If you use Google Analytics, you can apply this custom mobile dashboard to your account (netm.ag/dash-269)



Views All the views you have access to will appear. Choose the one you want to apply this dashboard to



★ IN-DEPTH

EMULATE ANY MOBILE **DEVICE IN CHROME**

It's important to test your site on a variety of mobile devices to see how usable it is. It's vital you try all of the tasks you want your visitors to complete when they're on your site. Do you have a contact form? Fill it out. Forms with outdated options – like text fields that require users to write out their state or region – can be very frustrating to mobile users. Does your site have a checkout option? Try buying something. How easy is it to add an item to a cart? How big are key buttons? Does your site use smaller, desktopfriendly buttons on mobile? If so, these are ideal candidates for optimisation. How difficult is it to remove an item from the cart? These are the types of issues you should be testing.

Larger organisations buy a variety of popular devices for testing purposes, but that's not always possible for smaller companies. To make the testing process more straightforward, Chrome Developer Tools gives you the ability to emulate a variety of mobile devices without having to leave your desktop computer. To use this feature, right-click anywhere on your web page and select Inspect Element. You can toggle the tool on and off, and choose different devices from a drop-down menu.

This amazing tool has lots of bells and whistles for webmasters and marketers to choose from. To explore further, watch my video tutorial (netm.ag/emulate-269) or take a look at Google's resource on this tool: netm.ag/emulate2-269



How to The button marked '1' toggles emulator tool on and off, and '2' enables you to choose your device from drop-down

important to analyse the performance of your site from tablet users.

To help webmasters identify pages that lack usability for mobile users. Google released a Mobile-Friendly Test tool. You just enter a URL, and it will give the page a pass or fail depending on a number of design factors. The results page will also show you a preview of your site, so that you can see for yourself how your page looks on a typical smartphone (see the section on mobile emulation to view your test page on a variety of mobile devices in Chrome). It will also let you know if you're blocking essential resources from Google, like your CSS and JavaScript files.

FOUR ESSENTIAL GOOGLE WEBMASTER TOOLS REPORTS

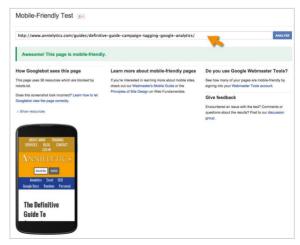
There are four reports in Google Webmaster Tools that are especially helpful to webmasters in evaluating mobile traffic. Let's take a closer look at each of these now.

Mobile usability

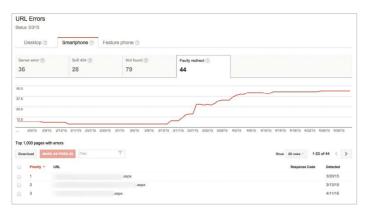
The Mobile Usability report is a recent report that was added to help webmasters identify issues that negatively impact mobile usability. To navigate to this report, click on Search Traffic to expand its report options. If you haven't signed your site up for Google Webmaster Tools, go to google.com/ webmasters. You will have to sign each subdomain up individually, and if your site has secure and non-secure pages, you'll need separate accounts for each.

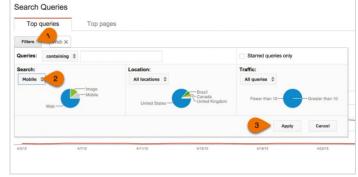
Issues this report flags include:

• Flash usage: To the chagrin of mobile users, most mobile browsers no longer render Flashbased content.



Mobile-friendly Google's Mobile-Friendly Test gives a page a pass/fail grade based on a number of design factors





Crawl errors View all smartphone-specific errors Googlebot has identified when crawling your site by choosing the Smartphone tab

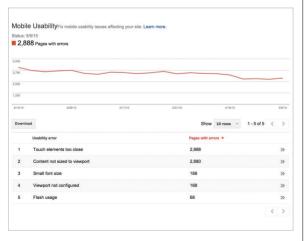
Keyword competition To see the keywords your site is competing for in mobile search. apply the Mobile filter to your report

- Viewport not configured: For all intents and purposes, the viewport is the screen real estate a website visitor has access to. Your site pages should specify a viewport using the meta viewport tag. This tag specifies how browsers should scale the page to render optimally in the visitor's device.
- Fixed-width viewport: Your viewport shouldn't be set to a fixed width. A responsive approach to building mobile sites allows the webmaster to set the viewport to match the device's width and scale accordingly.
- Content not sized to viewport: This flag identifies pages that require horizontal scrolling when viewing the page on a smartphone. Nobody wants to scroll back and forth to consume the content on your site.
- Small font size: If visitors have to zoom in to view content on your site, they then have to scroll to keep reading. Boo hiss.
- Touch elements too close: I see this flag quite a bit. I have child-size hands and rarely run into this issue, but if a 6'2" dude with giant man hands

Googlebot ran into while crawling your site, namely server errors, soft 404s (misconfigured 404 pages), not founds and faulty redirects.

All of these issues are important, but faulty redirects will arguably have the greatest impact on your site's performance in organic search. Many sites make the tragic mistake of redirecting mobile visitors to their homepage.

The timeline will update with a line chart that will help you identify patterns over the past 90 days (Google Webmaster Tools only provide 90 days of historical data). If you choose a device using Chrome Developer Tools' mobile emulator tool, the user agent will update to emulate an authentic mobile visit. And when you run a search in Google, you'll see the mobile-friendly snippet Google is



UX impact Google's Mobile Usability report lists categories of issues that can negatively impact the user experience on mobile devices

has to zoom in to avoid tapping the wrong button or link, he's not going to be a fan.

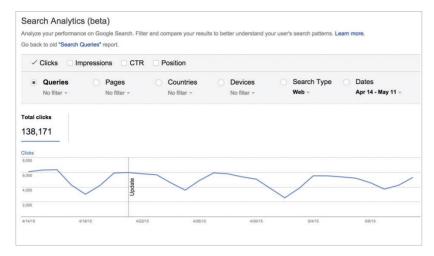
If Google identifies any of these issues on your site, they will be listed in this report. The main report will tally how many pages Google has discovered this issue on. To see the individual pages, click on the issue. This drill-through report sorts affected pages by priority.

Crawl Errors

The Crawl Errors report can be found by expanding the Crawl category. To see errors specific to smartphones, click the 'Smartphone' tab under 'URL Errors'. You will be able to see a list of issues

The Crawl Errors report lists errors including server errors, soft 404s and faulty redirects





Search Analytics This tool came out in May 2015 and replaces the Search Queries and Top pages reports. By default it selects Clicks only – the first thing I do is add in Impressions, CTR and Position

Countries Search Type Filter queries

Filter stacks You can build out robust filter stacks by adding filters on top of filters, to narrow the insights you need into your search performance

rewarding mobile-friendly pages with. You will also experience these faulty redirects and 404s without having to search on your mobile device. Can you tell I really, really love this tool?

Search Analytics

The Search Analytics report shows how often your site appears in Google search results. It just came out in beta in May, and replaces the Search Queries and Top Pages reports, with a number of notable improvements.

This report enables you to see the search terms your site is performing for in Google searches, as

Search Analytics lets you see the terms your site is performing for in Google searches

well as the pages those keywords drive traffic to. It's one of my favourites among all marketing tools, because ever since Google packed up its keywords and left the playground in a huff in 2011, marketers have been scrambling to gain insight into the keywords that drive traffic to their sites. This report is a decent - although not perfect - proxy for what we used to get from analytics.

What makes this report especially useful is the ability to filter by any search query and analyse the landing pages that showed up in Google searches for that term (or all terms that include the keyword you filtered for). This is a great way to find pages that are inadequately optimised.

Let's say you have a page that you've optimised for the term 'Burberry handbags'. If you find that three different pages on your site show up for this term, you would need to do some investigation to see if you have adequately optimised your primary landing page for 'Burberry handbags'.

Say you want to zero in on searches for Burberry handbags from mobile devices. You could easily do that by filtering for mobile in the Devices dropdown, and then your keyword under Queries. With the new Search Analytics report you can build out robust filter stacks to get exactly the data vou want.

One thing I really like about the new report compared to the legacy Search Queries and Top Pages reports is that when you add a filter and then change the grouping property (let's say from Queries to Pages), your filters remain. So, going back to the Burberry handbags example, you could filter further by page, country, and/or date (I always look at the full 90 days Google gives me).

I was an alpha tester for this report and created a video walkthrough to accompany it. You can view it at netm.aq/walkthrough-269. It's easily the most useful addition to Google Webmaster Tools in the past five years.

CONCLUSION

Google has provided a number of tools that webmasters and marketers can use to monitor and improve the performance of their websites, and help them keep pace with the ever-evolving technologies driving mobile technologies. Those who take full advantage of these tools can potentially poach traffic from their competitors who are slower to adapt to marketplace demands.



Most mobile campaign traffic shows up as direct. This campaign tagging guide will help you route visitors into the right buckets, so you get full credit for your marketing efforts: netm.ag/tag-269







* ACCESSIBILITY

SENSORY UX

Alastair Somerville explores what is so different about communicating information through personal devices like wearables

I have been making groups of UX designers communicate messages like 'Did you spill my pint?' and 'Does my bum look big in this?' using only the sense of touch to blindfolded people for a couple of years now. It is one way of enabling designers to understand what is different in the design of a future of more personal devices like wearables. Sensory UX explores how we create multi-modal experiences that exist across our physical and digital lives, and across our own bodies.

I have worked in a relatively small area of inclusive design for years. It is between access (designing the physical environment to be usable by people, whatever their physical or cognitive impairments) and accessibility (designing digital spaces to be usable by everyone). I help translate information from one state (like visual) to another (like tactile) for people with a range of impairments.

I started running sensory UX workshops when it became clear that screen-oriented UX designers were unaware of what happens when information is delivered through different sensory inputs and in layered, multi-sensory ways. It is these areas of sensory comprehension - and the very easy fall into user confusion - that have been core to my work of creating physical and digital products.

It is still early days in this area, but through running workshops at events like SxSW, ConveyUX and UXBristol, I've gathered some findings.

Firstly, things get emotional. The sensory nature of the interactions activates emotions and this affects meaning. What may seem to be a clear message is clouded by the user's emotional reactions.

Second, sensations are not simple. The idea of a sensory spectrum that runs from embracing to avoiding experiences is not enough. We are all on an axis of conscious and unconscious desires that testing needs to clarify. There are user survey tools to do this.

Finally, accessibility requires personalisation. Sensory UX shows that accessibility is core to successful wearable design. The experiences are personal and the design needs to be flexible to the user's desires at that particular time and place.

I am running more sensory UX workshops in Europe and the US over the summer for designers to learn the framework of ideas, questions and tools they need to create future products and services. There will be more blindfolds and fun. It is the experiences and the sensations that enable us all to discover more about ourselves and how we create new types of UX for everyone.

Alastair is a sensory communication consultant, and works to develop technologies and techniques to make information more inclusive to people with physical or cognitive impairments





Providing helpful, reliable, hassle free hosting for 15 years

We do all the server management so you don't have to



Try us today.

30 day no quibble money back guarantee.

2 0800 107 7979 **2** info@catalyst2.com

