

When the Developer Must Design

Andrew Malek
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Programmers Here...

AbstractSingletonProxyFactoryBean

SimpleBeanFactoryAwareAspectInstanceFactory

ListViewVirtualItemsSelectionRangeChangedEventHandler

IDataGridColumnStyleEditingNotificationService

```
$test =~ s/(\b\w+\b)(?:\s*\b)+/\$1/g;
```

http://www.perlmonks.org/bare/?node_id=104565



UX

Fonts

Icons

Negative
Space

Dialog
Boxes

RGB

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A Vital Truth About Design

“Nobody Wants To Use Your Product”

- Goran Peuc, Principal UX Designer at SAP Dublin

<https://www.smashingmagazine.com/2016/01/nobody-wants-use-your-product/>

“[P]eople are more interested in the end result and in obtaining that result in the quickest, least intrusive and most efficient manner possible.”

<https://www.smashingmagazine.com/2016/01/nobody-wants-use-your-product/>

“The Better the Design, the More Invisible It Becomes”

- Jared M. Spool, usability guru

<https://articles.uie.com/experiencedesign/>

“Good design is pretty much invisible.”

- Carrie Cousins, chief writer, Design Shack

<http://designshack.net/articles/graphics/10-reasons-why-the-best-design-is-invisible/>

Topics

- Interface Consistency
- Whitespace (Negative Space) and Simplicity
- Dialogs and Error Messages
- **Proper Grammar and Spelling**
- Icons
- Perceived Performance

The image consists of a 4x4 grid of traffic lights. The top two rows show the progression from red to green, while the bottom two rows show the progression from green to red. Each traffic light is mounted on a pole with a yellow 'Stihlberg' label. The background features a clear blue sky and some distant trees.

Consistency



I WANT TO RELAX...

A photograph of a man from behind, sitting on a large, dark rock formation by the ocean. He is wearing a dark t-shirt and a cap. The ocean is visible in the background with some small rocks in the water under a cloudy sky.

DON'T MAKE ME THINK*

“Don’t Make me Think” – also the name of a web UX book by Steve Krug



Spatial Memory

“In human-computer interfaces, knowledge of the spatial location of controls can enable a user to interact fluidly and efficiently, without needing to perform slow visual search.”

- J. Scarr, A. Cockburn, C. Gutwin

<http://www.joey.scarr.co.nz/pdf/spatialreview.pdf>

“People don’t like to learn things. If they take the time to learn something, they expect to be able to apply that knowledge in many places. It follows that good designers conserve the number of things users need to learn to get stuff done.”

- Scott Berkun, author and speaker

<http://scottberkun.com/essays/5-how-to-avoid-foolish-consistency/>

UI Guidelines

- iOS Human Interface Guidelines
<https://developer.apple.com/design/> (follow the link)
- Google Material Design (used in Android)
<http://design.google.com/spec/>
- Design applications for the Windows desktop
<https://dev.windows.com/en-us/desktop/design>
- OS X Human Interface Guidelines
<https://developer.apple.com/design/> (follow the link)

“When you mess with mental models, ...
you run a major risk of slowing down and
annoying your customers, and potentially
losing them all together.”

- Liraz Margalit, Web Psychologist

<https://uxmag.com/articles/who-moved-my-virtual-cheese>

“Nothing irritates a user more quickly than moving or disappearing navigational elements.”

- Patrix Cox, User Researcher and Product Designer

<http://designshack.net/articles/graphics/maintaining-consistency-in-your-ui-design/>

“... we inferred the location of the icon is more important than the visual imagery. People remember where things are, not what they look like.”

- Jared M. Spool, usability guru

<https://www.uie.com/brainsparks/2006/02/20/orbitz-can't-get-a-date/>

“Keep in mind though that apps and users are different: one solution might work ... well in an app and fail in yours. It's not a one-size-fits-all thing.”

- Zoltan Kollin, UX Director Ustream

<https://medium.com/@kollinz/misused-mobile-ux-patterns-84d2b6930570>

Fonts



“A good principle to live by, whether you’re new to typography or a seasoned pro, is to keep it simple. Or to put it another way, don’t use too many fonts. [M]ixing too many fonts on a page will probably result in a confused message”

- Nigel French

http://create.adobe.com/2013/12/1/eight_tips_for_combining_typefaces.html



...



A Reality Tour

SAVED

ALBUM BY DAVID BOWIE



▶ SHUFFLE PLAY

Available Offline



Rebel, Rebel - Live

David Bowie



New Killer Star - Live

David Bowie



Reality - Live

David Bowie



Fame - Live

David Bowie



The Man Who Sold the World - Live

David Bowie





...



A Reality Tour

SAVED

ALBUM BY DAVID BOWIE

SHUFFLE PLAY

Available Offline



Rebel Rebel – Live

David Bowie

New Killer Star – Live

David Bowie

Reality – Live

David Bowie

Fame – Live

David Bowie

The Man Who Sold the World - Live

David Bowie

- I III ocean (Bauhaus 93)
 - 1 Ill ocean (Rockwell)
 - I III ocean (Gill Sans® Monotype)
-
- “5 Faces for UI Design” - Dan Eden

<http://typecast.com/blog/type-on-screen-5-faces-for-ui-design>

“Type that is too small can be hard on the eyes and can even cause a headache.”

- National Institute on Aging, U.S.
Department of Human Services

[https://www.nia.nih.gov/health/publication/
making-your-printed-health-materials-
senior-friendly](https://www.nia.nih.gov/health/publication/making-your-printed-health-materials-senior-friendly)

“Text must be the proper size for readability from desired distances, and must contrast clearly against the background.”

- Paul Nini, Professor at The Ohio State University

<http://www.aiga.org/typography-and-the-aging-eye/>



Colors



Location: about:

[What's New!](#) [What's Cool!](#) [Handbook](#) [Net Search](#) [Net Directory](#) [Software](#)


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This version supports International security with RSA Public Key Cryptography, MD2, MD5, RC4.

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the free encyclopedia that anyone can edit.
2,766,101 articles in English

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navigation

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search

interaction

Today's featured article

Scene7 is an American on-demand rich media software company that provides document hosting and interactive publishing services such as online catalogs, targeted email, video, and image management. Several companies, mostly retailers, use the company's services to showcase products on their websites and to allow customers to interact with the products. Scene7's technology allows users to manipulate product images by zooming in and rotating products, simulating the inspection of

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In the news

- **Milan Milutinovil**, a former President of Serbia, is acquitted by the International Criminal Tribunal for the former Yugoslavia (building pictured) on charges of war crimes.



Screenshot from Microsoft Internet Explorer 5

Used with permission from Microsoft

https://en.wikipedia.org/wiki/File:Internet_Explorer_5_on_Windows_98.png

techcrunch.com

≡ **TC** ⚡

Snapdeal Raises \$200M More To Fuel Up For India's Ongoing E-Commerce Battle
10 hours ago by [Jon Russell](#)

Baidu-Owned Qiyi Could Go Private In Deal Valuing Chinese Video Site At \$2.8B
12 hours ago by [Jon Russell](#)

Tidal Tops U.S. App Store After Landing Exclusive Rights To Kanye West's New Album
14 hours ago by [Fitz Tepper](#)

CRUNCH NETWORK
The Health Sector Needs Tech Giants
18 hours ago by [Carla Smith](#)

Gravitational Helps Deliver Software On-Prem And In Cloud From Single Code Base
21 hours ago by [Ron Miller](#)

CRUNCH NETWORK
The New Face Of Behavior Change
22 hours ago by [Glen de Vries](#)

< > ⌂ ⌂ ⌂

This screenshot shows the TechCrunch mobile website (techcrunch.com) displayed in an iOS Safari browser. The page features a dark header with the TechCrunch logo and navigation icons. Below the header is a list of six news articles, each with a title, a timestamp, and the author's name. Each article is accompanied by a small thumbnail image. At the bottom of the screen is a dark footer bar with three additional icons.

TechCrunch - screenshot taken on iOS Safari

“Avoid using the same color in both interactive and noninteractive elements. Color is one of the ways that a UI element indicates its interactivity. If interactive and noninteractive elements have the same color, it’s harder for users to know where to tap.“

- iOS Human Interface Guidelines



Free as in Freedom

Welcome to the GNU Project web server, www.gnu.org. The [GNU Project](#) was launched in 1984 to develop a complete UNIX style operating system which is [free software](#): the GNU system. (GNU is a recursive acronym for "GNU's Not UNIX"; it is pronounced "guh-noo.") Variants of the GNU operating system, which use the kernel Linux, are now widely used; though these systems are often referred to as "Linux", they are more accurately called [GNU/Linux systems](#).

This is also the web site of the [Free Software Foundation \(FSF\)](#). FSF is the principal organizational sponsor of the GNU Project. FSF receives very little funding from corporations or grant-making foundations. We rely on support from individuals like you who support FSF's mission to preserve, protect and promote the freedom to use, study, copy, modify, and redistribute computer software, and to defend the rights of Free

original WorldWideWeb program

by Tim Berners-Lee

Copyright 1990-91-93-94, TBL, CERN. Distribution restricted; ask for terms.

Text: Text which is not constrained to be linear.

Media: Information which is not constrained linear... or to be text.

This is a new version of the NextStep WorldWideWeb application with the libWWW library. Bug reports to timbl@info.cern.ch, quoting the version information above. Check the list of known bugs in the web too.

This was the original prototype for the World-Wide Web. Many browsers for other platforms now exist (Read the web for details). After many years lying fallow, this application has now sprouted images and nested HTML elements and things. If you have an Internet connection, then using "Help" under the Info menu will tell you all about this application. If you don't have an internet connection -- get one! :-)

If you want to be able to read news, you should set the name of your local news server in the preferences.





Wi-Fi



Google Wi-Fi

Signal strength

Excellent

Security

802.1x EAP

Password

Show password

Show advanced options

CANCEL

CONNECT

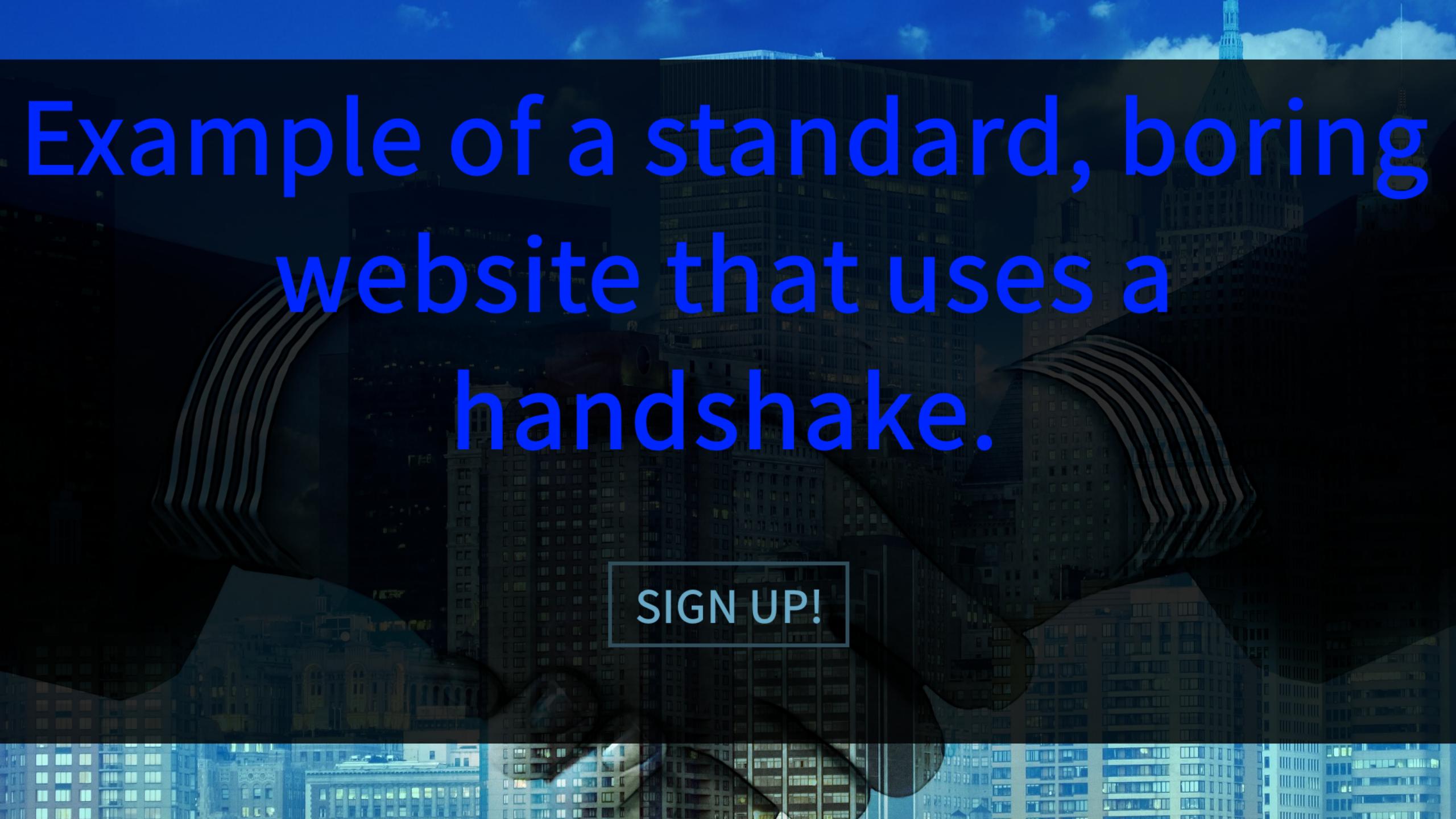
“Flat designs must rely on color & contrast as the indicator of interaction in the interface. That’s not an easy task.”

- Marcin Treder, UXPin CIO

[https://studio.uxpin.com/blog/5-dangers-of-
flat-design/](https://studio.uxpin.com/blog/5-dangers-of-flat-design/)

The background of the slide is a complex collage of various cityscapes and abstract shapes. It features a dense arrangement of skyscrapers from different angles, some with lights on and others dark. Overlaid on this are several large, stylized, curved shapes that resemble both architectural structures like domes or canopies and organic forms like petals or waves. The color palette is dominated by deep blues, blacks, and hints of yellow and orange from the city lights.

Example of a standard, boring
website that uses a
handshake.



Example of a standard, boring
website that uses a
handshake.

SIGN UP!

Color Contrast

- WebAIM Color Contrast Checker
<http://webaim.org/resources/contrastchecker/>
- Check my Colours
<http://www.checkmycolours.com/>
- Color Safe – Create accessible color palettes
<http://colorsafe.co/>
- “Color Contrast for Better Readability”
 - Tom Osborne, Viget VP of Design<https://viget.com/inspire/color-contrast>

Simulate Colorblindness

- Coblis – Color Blindness Simulator
<http://www.color-blindness.com/coblis-color-blindness-simulator/>
- Color Blindness Simulator
<http://www.etre.com/tools/colourblindsightulator/>
- iOS App Store: Chromatic Vision Simulator
<http://asada.tukusi.ne.jp/cvsimulator/e/>

Common

Protanope

x84%



Deuteranope

Tritanope





Whitespace

- "Out of clutter, find simplicity."
- Albert Einstein
- "The best way to find out what we really need is to get rid of what we don't."
- Marie Kondo, author and organizing consultant
- "If your UI even vaguely resembles an airplane cockpit, you're doing it wrong."
- John Gruber, Markdown inventor and writer
<http://daringfireball.net/linked/2008/12/01/fahey-bulk-rename-utility>

The Lord St. Simon marriage, and its curious termination, have long ceased to be a subject of interest in those exalted circles in which the unfortunate bridegroom moves. Fresh scandals have eclipsed it, and their more piquant details have drawn the gossips away from this four-year-old drama. As I have reason to believe, however, that the full facts have never been revealed to the general public, and as my friend Sherlock Holmes had a considerable share in clearing the matter up, I feel that no memoir of him would be complete without some little sketch of this remarkable episode.

It was a few weeks before my own marriage, during the days when I was still sharing rooms with Holmes in Baker Street, that he came home from an afternoon stroll to find a letter on the table waiting for him. I had remained indoors all day, for the weather had taken a sudden turn to rain, with high autumnal winds, and the Jezail bullet which I had brought back in one of my limbs as a relic of my Afghan campaign throbbed with dull persistence. With my body in one easy-chair and my legs upon another, I had surrounded myself with a cloud of newspapers until at last, saturated with the news of the day, I tossed them all aside and lay listless, watching the huge crest and monogram upon the envelope upon the table and wondering lazily who my friend's noble correspondent could be.

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“Poor use of white space does not impact reading performance. Higher satisfaction and preference of the better layout, should not be discounted, however, since such variables influence whether a user continues interacting with a website or simply moves on to one with better visual appeal.”

<http://usabilitynews.org/reading-online-text-with-a-poor-layout-is-performance-worse/>

Whitespace can “break up various parts of content for easier absorption of information.”

- Marc Schenker, writer

[http://www.webdesignerdepot.com/2014/07
/how-to-make-whitespace-work-on-the-
web/](http://www.webdesignerdepot.com/2014/07/how-to-make-whitespace-work-on-the-web/)

“Whitespace is essential for providing spatial relationships between visual items, and actually guides your eye from one point to another. Whitespace doesn't have to be large. Just a generous "gutter" between text and pictures can make a big difference...”

- Carla Rose, photographer and writer

<http://www.informit.com/articles/article.aspx?p=174346&seqNum=3>



“Make it easy for people to interact with content and controls by giving each interactive element ample spacing. Give tappable controls a hit target of about 44 x 44 points.”

- iOS Human Interface Guidelines



“To ensure balanced information density and usability, touch targets should be at least 48 x 48 dp. In most cases, there should be 8dp or more space between them.”

- Google Material Design guidelines



PLAY GAME!

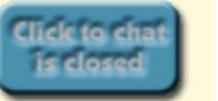


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Start HERE!



My cheapest leasing deals!



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LEASING

595
595 Convertible



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CAR LEASING

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Home

Cars and Vans

How It Works

Price Lists

me! WAH!
1500+ Letters

About Ling

Customers

Fun Stuff

Quote/
Order

Business Customer Pricing

Personal Customer Pricing

The Best FAQs in the World!

NEW

SEXY

christine full rep here



Search Cars Here

Go

FEAR CARS

christine full rep here



Go

@LINGsCARS

Follow Me

LING'S LIVE TWITTER FEED



The twitter pigeon is lovin' LINGsCARS"
LIVE + KICKING twittin'... WAIT!

WEB CAM



Intro Film

News

Blog

Office TV

Contact

Moan

Links

Play Quiz Privacy Policy

Google Visitors

"JUST CLICK!"



THE BEST...
FREQUENTLY ASKED QUESTIONS
...IN THE WORLD!



You can't find a car?

Apply for a CAR QUOTE



AS SEEN ON

TV



DRAGONS DEN



Richard Farleigh - "I wanted to invest; I was amazed by Ling's complete lack of nerves, and also by her business acumen."



Duncan Bannatyne - "I wanted to invest... but ye turn'd me dooon!"



Deborah Meaden "Harrumph! I'm out!"



CLICK HERE

MEET MY STAFF

VIZ

Ling is OFFICIAL VIZ ethnic business ambassador!

PLAY STUPID CRASH GAME!

CHEAP INSURANCE



Google Spider Food --->



View LIVE visitors:
online

37

**Allow this device to access
photos and videos?**

This device will be able to access
photos and videos while it is
connected to your iPhone.

Dialogs and Errors

Allow

Deny

"Programming today is a race between software engineers striving to build bigger and better idiot-proof programs, and the Universe trying to produce bigger and better idiots. So far, the Universe is winning."

- Rick Cook, author

https://en.wikiquote.org/wiki/Rick_Cook

This is a very important dialog box.

Failure to read this dialog box will result in activating your ejector seat, deleting your cloud backup, and unleashing an army of robotic zombie cats.

CANCEL

OK

“You actually need to read the question.” – David Chisnall

<http://www.informit.com/articles/article.aspx?p=1146301>

Suggestions from iOS Guidelines

- “Avoid creating unnecessary alerts”
- “Succinctly describe the situation”
- “Avoid single-word titles”
- “Use verbs and verb phrases”

Discussions on Alerts

- iOS Human Interface Guidelines – Alert
<https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/MobileHIG/Alerts.html>
- “Should I use Yes/No or Ok/Cancel on my message box?” – UX Stack Exchange
<http://ux.stackexchange.com/questions/9946/>

Grammar

graminaceous /græmɪ'neɪʃəs/ adj.
or like grass. [Latin *gramen* grass]
graminivorous /græmɪ'nɪvərəs/
feeding on grass, cereals, etc.
grammar /'græmə(r)/ n. 1 the stu-
rules of a language's inflections or
meanings, esp. the relation be-
words. 2 observance or applica-
the rules of grammar (*bad gram-
mar*)

Consistency

- Title Case? Or sentence case?
- End everything with punctuation – or don’t
- Don’t use exclamation points unless really needed!!!!
- Optional word spellings? Pick one. Login. Log in. Signup. Sign up.
- You should keep the tone consistent, please.

Grammar and Microcopy

- For Grammar's Sake, Please Log In
<http://www.slideux.com/slides/2014/11/14/log-in-vs-log-in>
- Does Bad Grammar Make Bad UX?
<http://www.sitepoint.com/bad-web-grammar-bad-ux/>
- Five Ways to Prevent Bad Microcopy
<https://www.smashingmagazine.com/2013/06/five-ways-prevent-bad-microcopy/>
- The Art of Writing Microcopy and Why it Matters
<http://www.smartinsights.com/persuasion-marketing/web-copywriting/the-art-of-writing-microcopy-and-why-it-matters/>



Icons

Icons One Could Argue as “Standards”

| | |
|---|------------------|
|  | Save |
|  | Search (or Zoom) |
| | Help |
|  | Printout |
| | Home Screen |
|  | Settings |

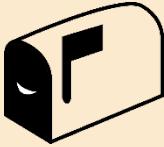
“...I narrowed my results to the 131 people who selected the 18-25 age range.”

“96% of respondents knew that the square icon with the notch cut out of the top right represented a floppy disk...”

- **Lis Pardi, Information Scientist**

<http://boxesandarrows.com/icon-survey-results/>

Potentially Confusing Icons



Mailbox? In Every Country?

<http://www.curveagency.com/blog/usability-web-icons>

Like? Bookmark? Favorite?



Learning? Intelligence?

<http://www.deseretnews.com/article/705370663/>



Sign Out? Go Forward?

“The Microsoft Outlook toolbar is a good example: the former icon-only toolbar had poor usability and changing the icons and their positioning didn’t help much. What did help was the introduction of text labels next to the icons. It immediately fixed the usability issues and people started to use the toolbar.”

<http://uxmyths.com/post/715009009/myth-icons-enhance-usability>

“In our study, we found that for icons with labels, users were able to correctly predict what would happen when they tapped the icon 88% of the time.

For icons without labels, this number dropped to 60%.

And for unlabeled icons that are unique to the app, users correctly predicted what would happen when they tapped the icon only 34% of the time.”

- Hannah Alvarez, UserTesting

<https://www.usertesting.com/blog/2015/08/04/user-friendly-ui-icons/>

“To help overcome the ambiguity that almost all icons face, a text label must be present alongside an icon to clarify its meaning in that particular context.”

“Use the 5-second rule: if it takes you more than 5 seconds to think of an appropriate icon for something, it is unlikely that an icon can effectively communicate that meaning.”

- Aurora Bedford, User Experience Specialist

<https://www.nngroup.com/articles/icon-usability/>

Icon Libraries

- FontAwesome

<https://fontawesome.github.io/Font-Awesome/>

- FlatIcon

<http://www.flaticon.com/>

- Bootstrap framework (Glyphicon Halflings)

<http://getbootstrap.com/>

A bright yellow Lamborghini sports car, likely a Gallardo, is parked on a green grassy field. The car is shown from a front-three-quarter angle, facing towards the right. The top is down, and the background consists of a flat, green lawn under a clear sky.

Perceived Performance

“As with so many things in life, perception is reality: if users see file copying as slower, it *is* slower.”

- Jeff Atwood, Stack Overflow co-founder

<http://blog.codinghorror.com/actual-performance-perceived-performance/>

| | |
|------------|------------------------|
| 0.1 second | Instantaneous feedback |
| 1.0 second | Noticeable delay |
| 10 seconds | Patience reached limit |

Response Times: The 3 Important Limits

- Jakob Nielsen, Nielsen Norman Group

<https://www.nngroup.com/articles/response-times-3-important-limits/>

Please Wait. . .

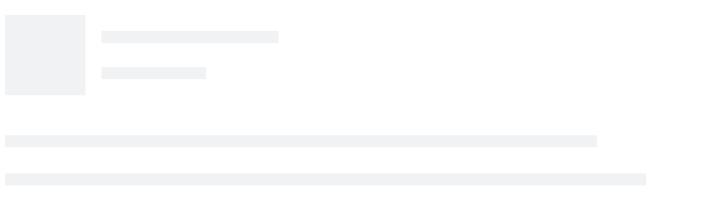
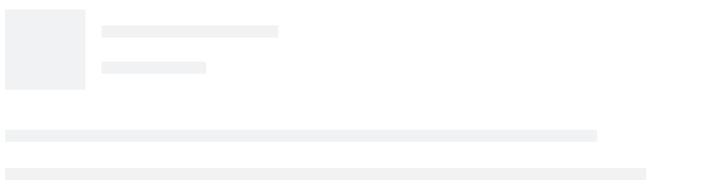
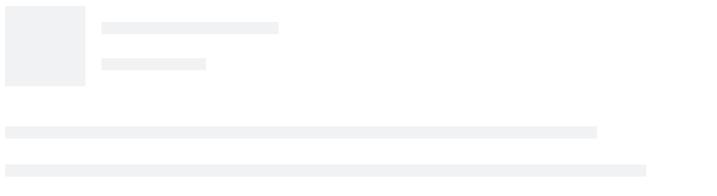
 Search



 Status

 Photo

 Check In



 News Feed

 Requests

 Messages

 Notifications

 More

Design





Design Tips

- Be consistent
- Whitespace is your friend
- Explain dialog boxes and errors
- Double-check spelling and grammar
- Label icons
- Perceived performance is important



Dawn Huczek on Flickr - “I think they need a few more signs!”

<https://creativecommons.org/licenses/by/2.0/>

fin

@malekontheweb