

UX: User Experience Design for Web Apps

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Terminology . . .

UX(D): User experience design for an improved experience for the user

Interaction design: what happens when the user clicks, taps, or swipes...

Information architecture: how everything in the interface should be organized

Usability: useful, learnable, memorable, effective, efficient, desirable, delightful...

Main resources

[Krug] Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability (3rd Edition) (Voices That Matter) by Steve Krug

[Lean UX] UX for Lean Startups: Faster, Smarter User Experience Research and Design* by Laura Klein (

[Nathan Barry] Designing Web Applications* (<http://nathanbarry.com/webapps/>)

[Getting real] A book from 37Signals (<https://gettingreal.37signals.com>)

Topics...

About your **idea...**

Thinking about users



Lean UX

Designing your **app**

Navigation



Common design issues

Trying out your **ideas**

What about mobile?



So what about your
idea?

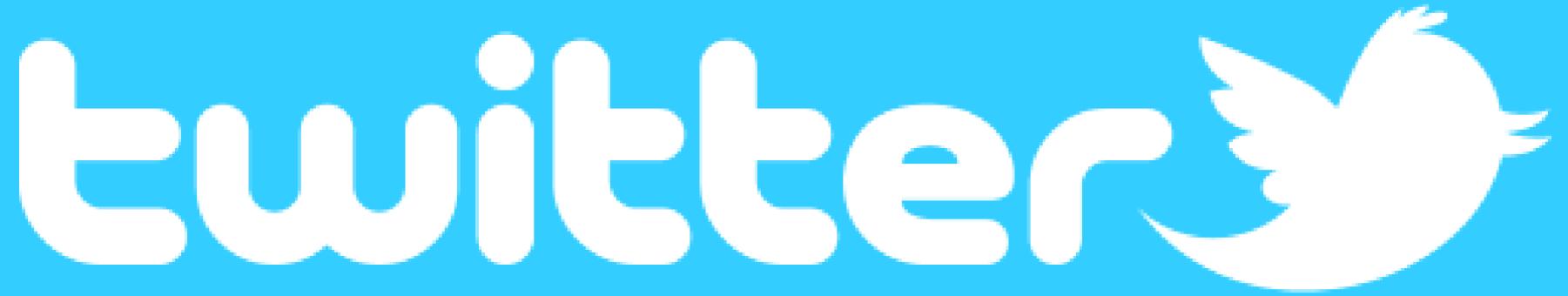
Sources of inspiration

Needs to address a **specific problem**

- May automate some repetitive tasks (e.g. daily ones)
- May bring together data from different apps
- We are annoyed if we can't do things online [Krug]

Talk to people “*if you could wave a magic wand...*”, and
“*tell me more...*” [Nathan Barry]

Solve your own problem: “*Scratch your own itch*” [39signals book, Open source mantra]



“Sometimes the best types of problems to solve are the ones that the users don’t really know are problems until you fix them” [Lean UX]



*What is your app **not** about?*

Web app or Website?



An app can create an account, tracks what you watch, gives you recommendations [Nathan Barry]

A **website** is defined by its **content**

An **app** is defined by its **user interactions**

[\[http://stackoverflow.com/questions/8694922/whats-the-difference-between-a-web-site-and-a-web-application\]](http://stackoverflow.com/questions/8694922/whats-the-difference-between-a-web-site-and-a-web-application)

Thinking
about the user

How we really use the web?

[Krug]

#1: Scanning



How we really use the web?

[Krug]

#2: Satisficing

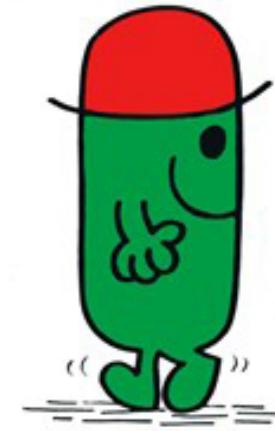


How we really use the web?

[Krug]

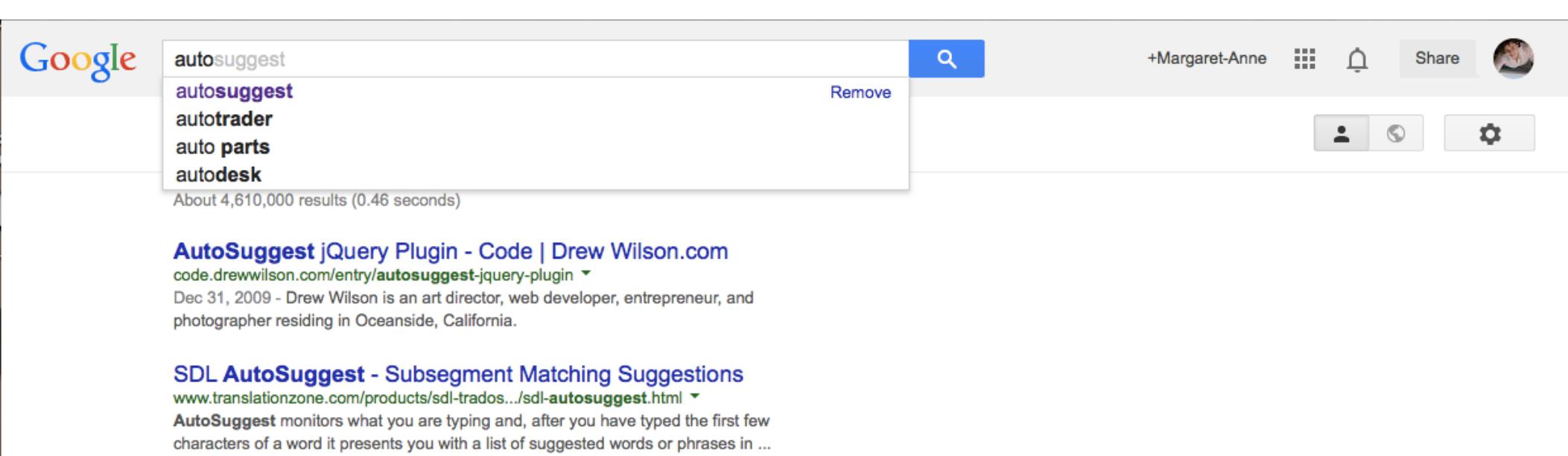
#3: Muddling through

MR. MUDDLE
by Roger Hargreaves



User expectations

Users have come to **expect features** like autosuggest, autocorrect [Krug]



A screenshot of a Google search results page. The search bar at the top contains the query "autosuggest". Below the search bar, a dropdown menu displays several suggestions: "autosuggest", "autotrader", "auto parts", and "autodesk". A "Remove" link is visible next to the suggestions. To the right of the suggestions, there is a search button with a magnifying glass icon. Further to the right, there are social sharing icons for Google+, a bell icon, a "Share" button, and a user profile picture. Below the search bar, the text "About 4,610,000 results (0.46 seconds)" is displayed. The main content area shows two search results. The first result is titled "AutoSuggest jQuery Plugin - Code | Drew Wilson.com" and includes a link to "code.drewwilson.com/entry/autosuggest-jquery-plugin". Below the link, it says "Dec 31, 2009 - Drew Wilson is an art director, web developer, entrepreneur, and photographer residing in Oceanside, California." The second result is titled "SDL AutoSuggest - Subsegment Matching Suggestions" and includes a link to "www.translationzone.com/products/sdl-trados.../sdl-autosuggest.html". Below the link, it says "AutoSuggest monitors what you are typing and, after you have typed the first few characters of a word it presents you with a list of suggested words or phrases in ...".

Human Factors

“*Don’t make me think*” [Krug]

Technology changes very quickly, but people change very slowly...

Guidelines — common sense? Once you know it!
e.g., <http://ixdchecklist.com>

Barbossa: First, your return to shore was not part of our negotiations nor our agreement so I *must* do nothing. And secondly, you must be a *pirate* for the pirate's code to apply and you're *not*. **And thirdly, the code is more what you'd call "guidelines" than actual rules.** Welcome aboard the *Black Pearl*, Miss Turner.

Lean UX

[UX for Lean Startups]

Lean UX is about validating hypotheses
(assumptions you make)

Lean UX is **agile**, data driven, iterative

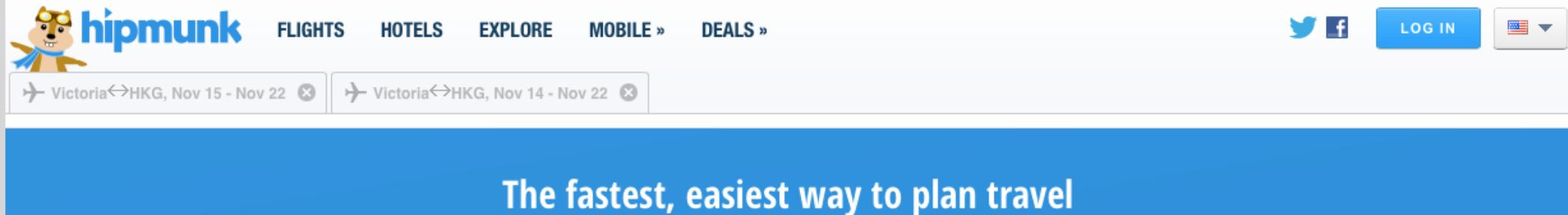
Constantly **improve features**, not add new ones

Don't be afraid to **pivot**

What is your app's **Tagline**? [Getting Real]

Some examples from 37signals:

- Basecamp: *Project management is communication*
- Backpack: *Bring life's loose ends together*
- Campfire: *Group chat over IM sucks*
- Ta-da List: *Competing with a post-it note*
- Writeboard: *Word is overkill*



The screenshot shows the Hipmunk travel search interface. At the top, there is a navigation bar with links for FLIGHTS, HOTELS, EXPLORE, MOBILE, and DEALS. On the right side of the header are social media icons for Twitter and Facebook, a "LOG IN" button, and a language selection dropdown. Below the header, there are two search input fields. The first field contains the text "Victoria↔HKG, Nov 15 - Nov 22". The second field contains the text "Victoria↔HKG, Nov 14 - Nov 22". A large blue banner at the bottom of the page features the tagline "The fastest, easiest way to plan travel".

Minimal Viable Product

“It’s a cupcake, not a half-baked bowl of ingredients”

[UX for Lean Startups]

Don’t be everything to everyone



Be **motivated** by the products that do too much!

Rather than crossing out features, **circle** the ones you really want [Nathan Barry]

Emergence

Simple designs lead to **emergent** behaviours [Getting Real]

Keep it small. Keep it simple. Let it happen. –Andrew Hunt, The Pragmatic Programmer

A large, white, sans-serif font 'YO' logo is centered on a solid purple rectangular background. The letters are bold and have a clean, modern appearance.

It's that simple.

Early designs

Paper and pencil

Wireframes

Come up with multiple designs

"Everybody knows the problem: We need to be more innovative. Now we've got the solution: *Gamestorming*. This smart, fun, hands-on book will energize your brain and mobilize your creativity—and do it using stuff you already have in your supply closet!"

—Daniel H. Pink, author of *Drive* and *A Whole New Mind*

Gamestorming

A Playbook for Innovators,
Rulebreakers, and Changemakers



O'REILLY®

Dave Gray
Sunni Brown
James Macanufo

Embrace Constraints

Limitations may lead you to creative solutions [Getting Real]

The antidote to feature blight is the “constricting deadline.” Jef Raskin (from Why Software Is the Way It Is)

Some Important Tips

Write **stories**

Develop **personas** you believe in

What is your product's **personality** [Getting Real]



[Home](#)

[Developers](#)

[Project Leaderboard](#)

[Login Developers »](#)

[Login Employers »](#)



Show off your coding chops

We bring all your projects together in one neat profile and let you show off your coding skills to developers and employers.

[Sign up and claim your profile](#)

Designing your app

Epicentre Design

Start from the core of the page and grow outwards
[Getting Real]

The fastest, easiest way to plan travel



Search Flights

From

City or Airport

To

City or Airport

✈ Search



Search Hotels

Where

City

กระเป๋า Search

Regular, blank and error states

What does your user see the **first time** they visit the app? What is a helpful blank slate?

Search for a city, hotel, etc.

No words needed...loved everything!

OOOOO Review by GiZaramella

See all 3,493 reviews of Fernando de Noronha >

Plan your perfect trip

Hotels Flights Vacation Rentals Restaurants Destinations

City or hotel name dd/mm/yyyy dd/mm/yyyy Find hotels

Regular, blank and error states

“Defensive design is like defensive driving” [Getting Real]

The image shows a user interface for a form. At the top right, there is a link labeled "Can't access my". Below it is a horizontal line with several input fields:

- A text input field containing "Ben".
- A text input field containing "Rowe".
- A dropdown menu showing "Male".
- A date input field showing "01 February 2030".
- A dropdown menu showing "Australia".
- An empty text input field.

To the right of the date input field, there is a light blue callout box with a red exclamation mark icon and the text "Are you really from the future?".

At the bottom left, there is a text input field containing the letter "d".

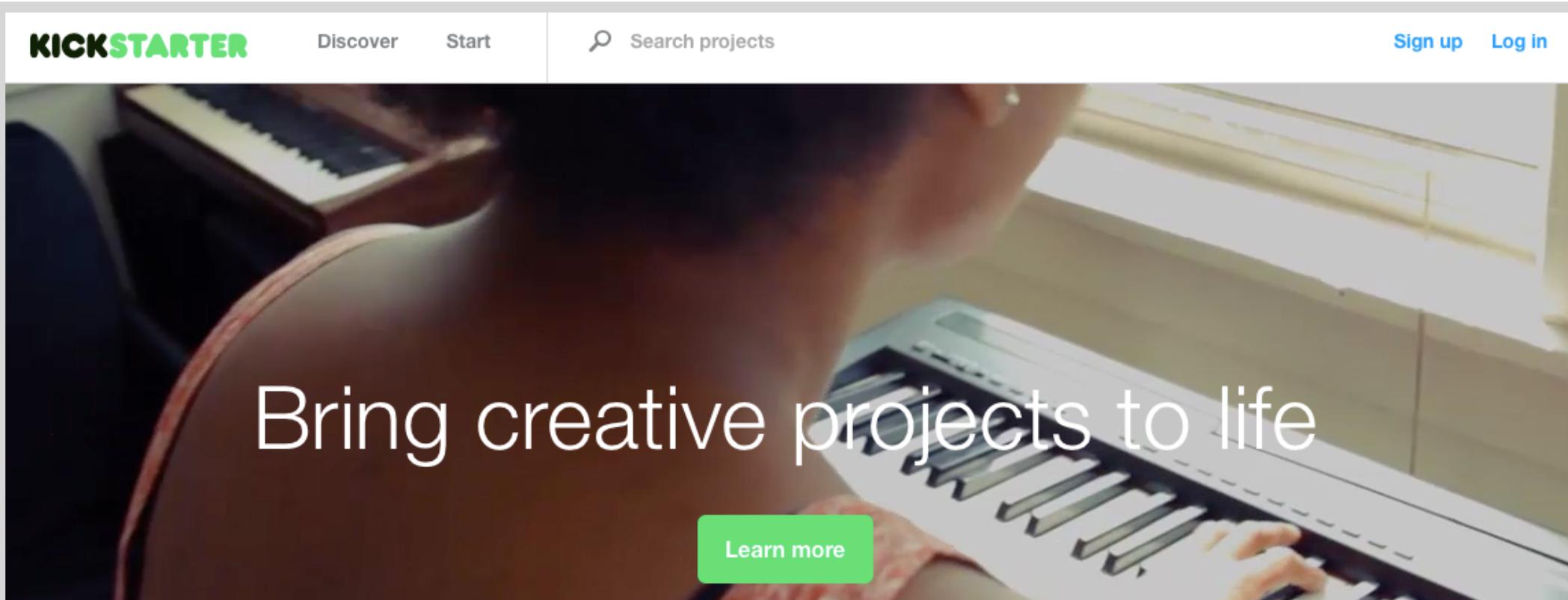
At the very bottom, there is a row of small icons: a magnifying glass, a person icon, a gear icon, a bar chart icon, and a gear icon.

Navigation

Home page

“*like the North Star*” of the site’s persistent navigation [Krug]

If not **self-evident**, then make it **self-explanatory** [Krug]



Where am I?

Tell users where they are: every page should have a **visible name** in the same place (should frame the content)

The name should **match what the user clicked** to get there

Make use of **breadcrumbs**

(e.g. GitHub: > between levels, boldface the last item),

Test if your site passes the “**trunk test**” [Krug]

A screenshot of a GitHub repository page for 'alexeyza / startup-programming'. The page shows the repository's name, a branch dropdown set to 'master', and a file path 'resources / recommended reading.md'. At the bottom, a commit by 'cliffmcc' is visible, dated 4 days ago, with the message 'Update recommended reading.md'. The GitHub interface includes standard navigation elements like 'Explore', 'Gist', 'Blog', and 'Help' at the top, and user profile information for 'margaretstorey' on the right.

Navigation controls

Main navigation may be at the **top for short lists** or
left for long lists (accordion lists for very long menus)

Top links can look like **tabs** to provide context

Account information is often on the **top right**
(users expect it there)

Minor details on the **bottom**
(e.g. contact, help, blog)

Try to associate **icons with items** in a menu
(visual recognition)

Navigation considerations

When the user **logs in**, where do they **land**?

Design for **search-dominant** and **link-dominant users**
[Nielsen]

Not just about **reducing clicks**, each one should be
unambiguous and require no thought

Browser **back buttons** should work

Be **consistent**

Design the navigation around the **core scenario**

Some Design Issues

Writing is designing

[Krug]

Every word and letter matters, **omit needless words**

Use words that match the **user's goals and lingo**, avoid jargon

Clear and **concise**

Add **information** to buttons

Choose words to suit your product's **personality**

Insert **actual text** not *Lore ipsum* [Getting Real]

Which is better? [Nathan Barry]

Delete this movie?

Delete?

Delete movie?

Dialogs

Avoid yes/no dialogs (users usually don't read text)

But do tell them what they just did and allow them to undo it



Preferences

If possible avoid, decide for your users [Getting Real]

The image shows a Trello board titled "LinkedLists Code Retreat". The board is organized into several columns representing different teams:

- Archive Team**:
 - Birth date of a citation
 - Creator of the citation (parent)
 - Tags related with the citation (present)
 - Implementation (1 comment)
 - Data Source=Budweiser;Initial Catalog=SOF JUL2013:Integrated
- Database Team**:
 - Test range queries against full citations table from Archive Team
 - Implement Cached Range query table
 - Implement Cached Range queries
 - Implement batch tabled updater tool/service
 - TestDatabase.cs not committed to
- Live Team**:
 - Implement event stream parser
 - Test Interface to Linked Lists post change history DB
 - Deploy parser to server
 - Calculate throttling impact on parser
 - Add a card...
- UI Team**:
 - Implement Advanced Search Panel
 - Implement more tags paging on Tags Panel
 - Move user bio to top of results on user page
 - Move tag bio to top of results on tag page
- Server Team**:
 - Create te
 - Create te
 - Deploy w
 - Deploy d
 - Setup ac
 - Setup sc

At the top right, there is a user profile for "Margaret-Anne Storey". The Trello logo is in the center of the header.

Test your ideas

Watch your users

2-3 people will find 80% of the usability errors — even your target audience is a beginner at some point

Give **simple tasks**

Ask: Did they know where to start? What did they look at?
Where did they click first? Did they try to click on things
that aren't clickable? [Nathan Barry]

Record the interactions, share!

Prioritizing features

The ability to change is key, so **stay “lean”**

Watch for **“feature blight”**

Make half a product rather than a half-assed product [Getting Real]

Be careful **not to follow the competitors** too closely [Getting Real]

Don’t fix problems you don’t have yet! [Getting Real]

What doesn’t matter? Best designers know! [Getting Real]

Just because someone asks for a feature, doesn’t mean you should add it (they will **remind** you) [Getting Real]

What about mobile?

[shouting] PHENOMENAL COSMIC POWERS!
[softly] Itty-bitty living space!

—ROBIN WILLIAMS AS THE GENIE IN ALADDIN, COMMENTING ON THE
UPSIDE AND DOWNSIDE OF THE GENIE LIFESTYLE



Tradeoffs...

Don't hide affordances but tendency towards flat designs: lose affordances



How to user test on a mobile device?

Takeaways...

Your approach....

Design -> Prototype -> Code -> Design...

Instead of a 12 week project, think of it as 12
weeklong projects [Getting Real]

Don't split into silos [Getting Real]

Learn more!

- Resources on course website
- Study other web apps!
- Study your competition

Examples of web apps

<http://www.developer.com/design/top-10-design-tips-for-web-apps.html>

<http://designmodo.com/web-application-interface/>

<http://www.webbyawards.com/winners/2014/web/website-features-and-design/best-visual-design-aesthetic>

<http://www.webbyawards.com/winners/2014/web/website-features-and-design/best-visual-design-function/vimeo>

<http://www.webdesign-inspiration.com/web-designs/type/mobile-app>

<http://www.html5rocks.com/webappfieldguide/know-your-apps/intro/>

Other resources (courtesy of Jonathan Heron, web designer in Dublin)

Favourite books for people who want to learn a UX mindset

- The Design of Everyday Things (3rd edition in particular, due to addition of [signifiers](#))
- [The Elements of User Experience](#)
- [Universal Principles of Design](#)
- [Simple and Usable](#)
- [Don't Make Me Think](#) (see above)

Diving deeper into specific areas

Social design

- [Grouped](#)

Sketching and thinking

- [Sketching User Experiences](#)

Interaction design

- About Face ([4th edition](#))
- [Microinteractions](#)
- [Web Form Design](#)

Content strategy

- [Content Strategy for the Web](#)
- [The Elements of Content Strategy](#)

Information architecture

- [Information Architecture for the World Wide Web](#)
- [Ambient findability](#)
- [A Practical Guide to Information Architecture](#)

Extra material...

Icons

[Nathan Barry]

See icons sets at: [Glyphish](#) and [Symbolcons](#)

Flat icons for adding to tabs, headings and for drawing attention to buttons

Be careful with 3D icons!

For small 16px square icons, see [FamFamFam](#) or [Fugue](#)

Don't mix icon styles!

Have an active version for an active state