

Human-Computer Interaction

Understanding Web UI Elements and Principles

Agenda

- The Essence of Interface
- Input Controls
- Navigation
- Animations
- Default Settings
- Guided Actions
- Visual Clarity & Language Clarity
- The "MAYA" Principle
- Takeaway

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The Essence of Interface

- You're designing the interface for the Facebook homepage.
 - Ask yourself "**What are the jobs people want to do here?**"
- The answers:
 - **sharing** news, pictures, messaging
 - **sending** and **receiving** invitations...

The Essence of Interface

- “A web interface is a collection of jobs, not just pretty screens and pixels”
- Each of these jobs needs a beginning, a middle, and an end.
 - Users want to post news → click in “Update Status” box (beginning).
 - This expands the message window → allows to type their message (middle)
 - When they are finished, they click “Post” and can see their new Status Update appear on the screen so that they know it’s official (end)

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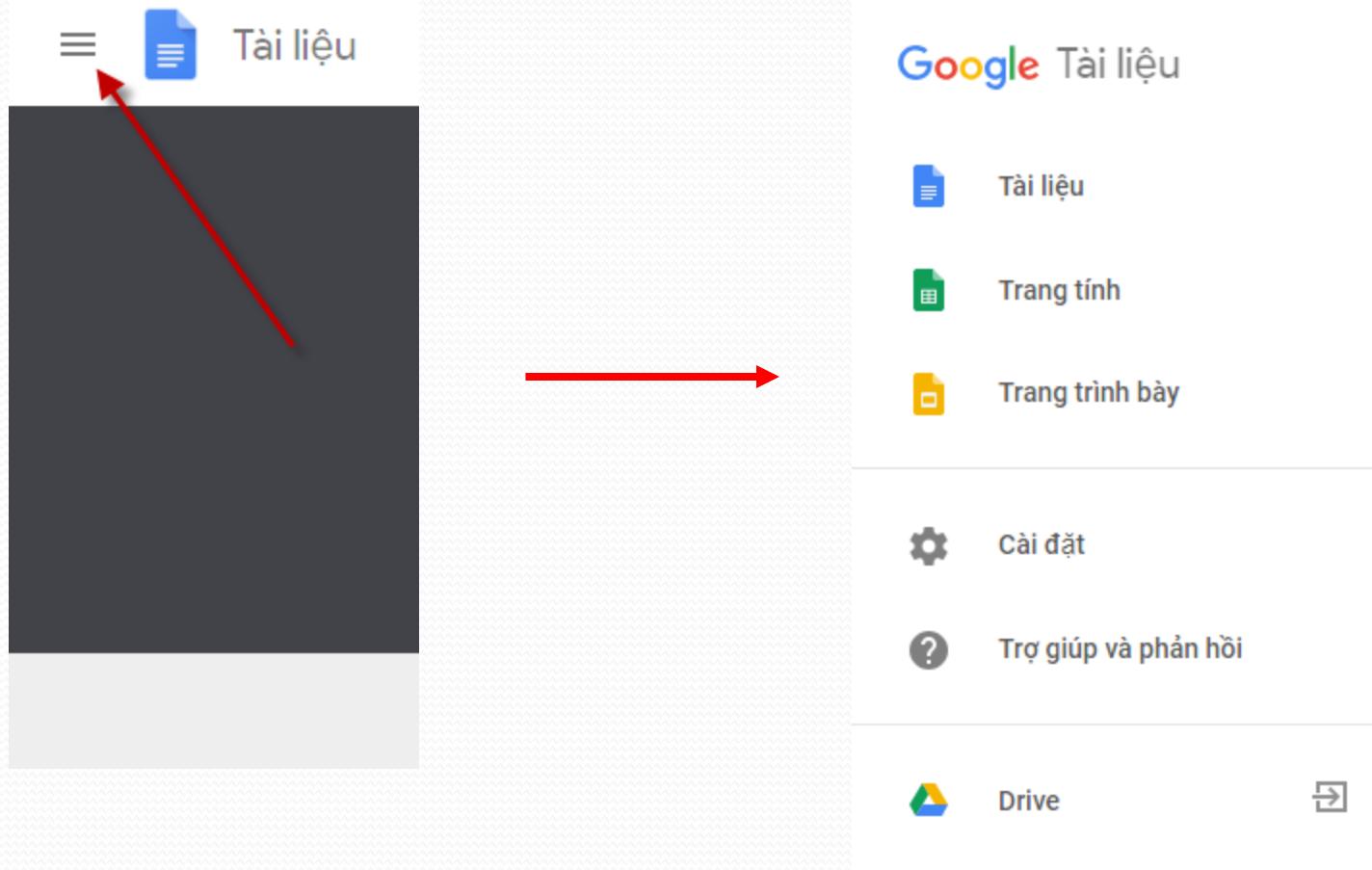
Input Controls

- Interface would just be a “face” **without interaction**, and a lot of that comes from **input controls**.
- But there’s a **paradox** with controls, because users want more options, but every new control complicates the UI and clutters the screen.
- The best way to strike that perfect balance, is to have **controls on demand** (**Dmitry Fadeyev** - founder of Usaura)

Input Controls

- Hiding controls until needed → save on screen space without having to sacrifice user options
- It's a **win-win solution** that's been adopted by most high profile websites at this point.

Example: Google Docs



Example: CollabFinder

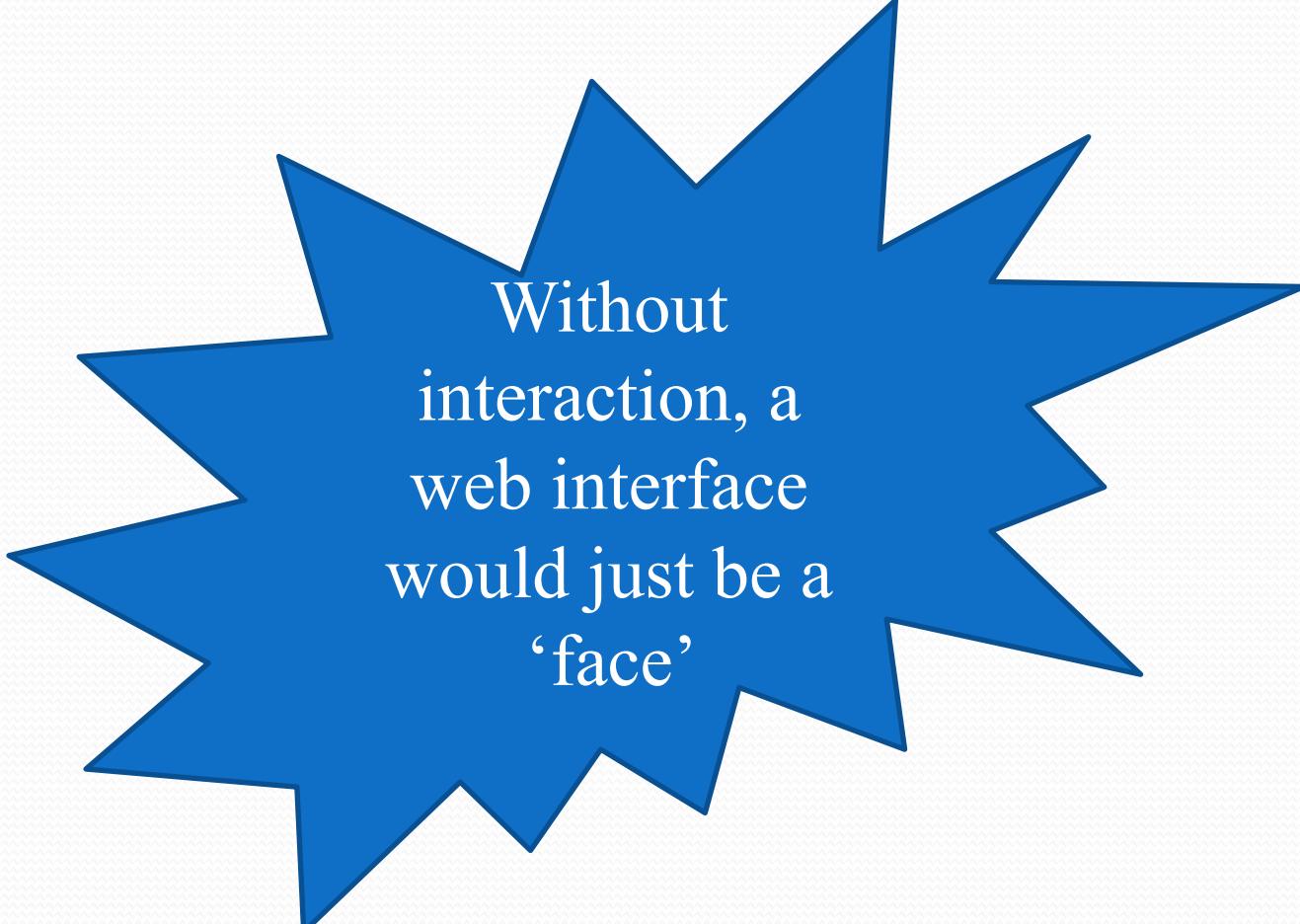
The image shows a user interface for a platform called CollabFinder. At the top, there is a search bar with the placeholder "Projects that need: Anyone". Below the search bar are three input fields: "Located in..." with a location pin icon, and "Tagged..." with a heart icon.

On the left, there is a card for a project titled "COOKIT". The card features a brown header, a preview of three meal options (Breakfast Oatmeal, Egg & Veggie Omelette, Chicken Butter Noodle), and a call-to-action button. Below the card, the text "Cookit.co - Eat well, no matter your pocket size" is displayed.

In the center, there is a card for a project titled "Game and Community Development". The card features a green header and a preview of three character models wearing blue and brown tunics. Below the card, the text "Game and Community Development" is displayed.

On the right, a modal or dropdown menu is open, listing categories under the heading "Anyone". The listed categories are: Developers, Designers, Artists, Writers, Scientists, Musicians, Filmmakers, Product Managers, and Engineers. To the right of the modal, there is another card for the "Game and Community Development" project, which is identical to the one in the center.

Input Controls



Without
interaction, a
web interface
would just be a
'face'

Text field

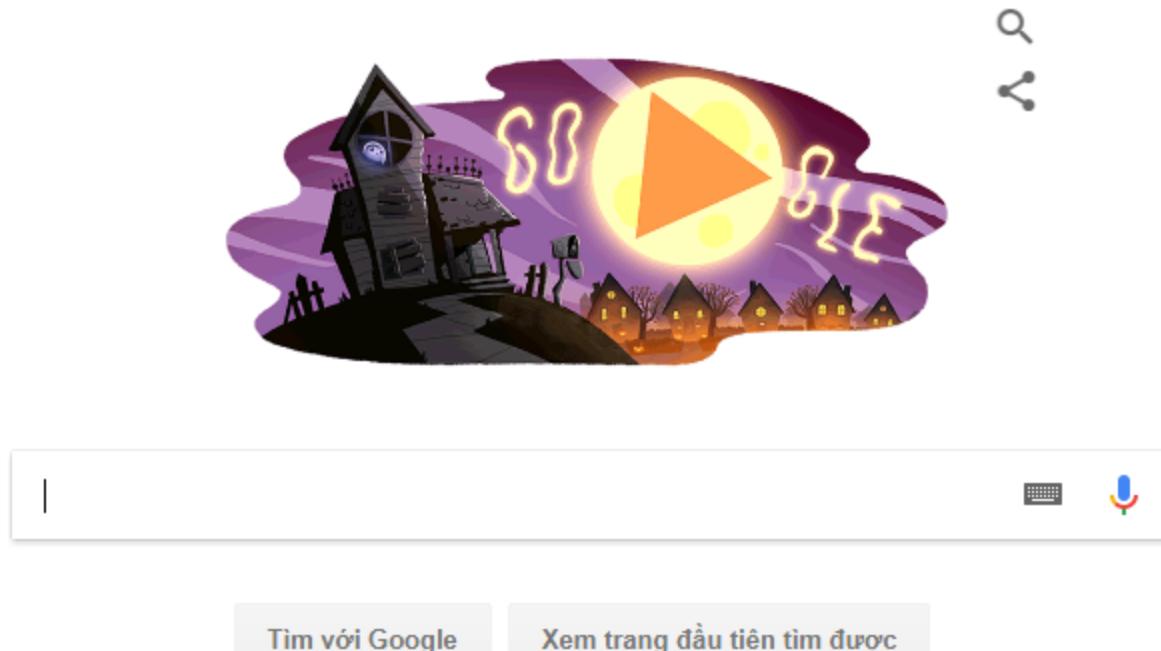
- A **customized input field** can:
 - help infuse some personality into your site,
 - avoid an unfortunate clash of colors with generic designs.

Text field

- If your site is focused on a certain input field, or if input is a necessary first step, you should implement an auto-focus → cursor starts there automatically (From Fadeyev)
- The best example: Google
 - entering the site, the user can start typing their query without clicking anywhere.
 - incorporates **default values** and **auto-complete**, which significantly speeds up user actions and helps users explore additional topics and themes

Text field

-



Text field



human use|



human user interface

human use of fire

human use

human uses of plants

human uses for spider silk

human user manual

human uses of water

human uses of the rainforest

human uses for catnip

human uses for fungi

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Navigation

- It's hard to appreciate a site if you're lost, which is why **navigation is mandatory** when discussing web UI design

Solutions / Adobe Marketing Cloud / Core services /
Mobile services / App-centric user interface

source: Adobe

2 cardinal rules of navigation

- **1. Users should always know their current place in the site**
 - This is instrumental in making your users feel comfortable, and streamlines the site on their end.
 - Ways to orient your user involve highlighted menu items, breadcrumb trails, and headings
- **2. The navigation system remains consistent**
 - Don't move your menu bar around.
 - For example: Imagine how frustrating it would be if you were lost in a city, and streets signs switched between posts, the sides of buildings, the sidewalk, etc

Navigation

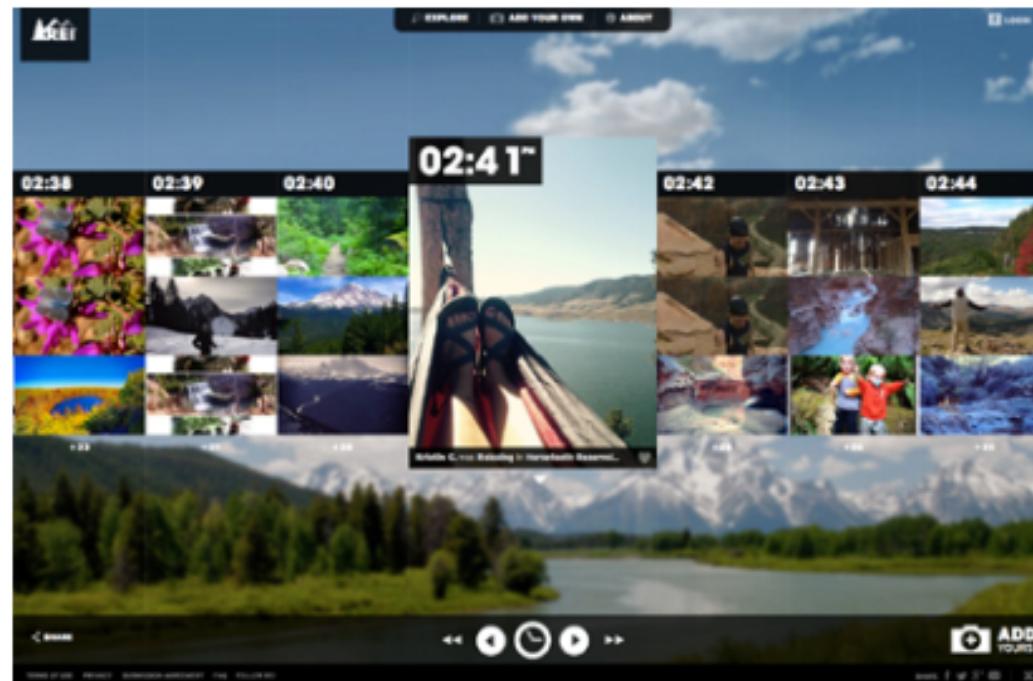
- Your **navigation** needs to match the flow of **content** via proper **placement**.
- **Content:** the site's content is complete before tackling the navigation.
 - If your content is lacking, even the best navigation won't save the site.
 - Navigation must support the content

Navigation - Content

- **Menus** – The default choice for users to find site content.
- **Breadcrumbs** – Many users do not land on the homepage, so orientation is essential. **Breadcrumbs** provide that reference point.
- **Filters** – Filters make content-heavy sites manageable.
- **Links** - Helps users understand connections between related content

Navigation - Placement

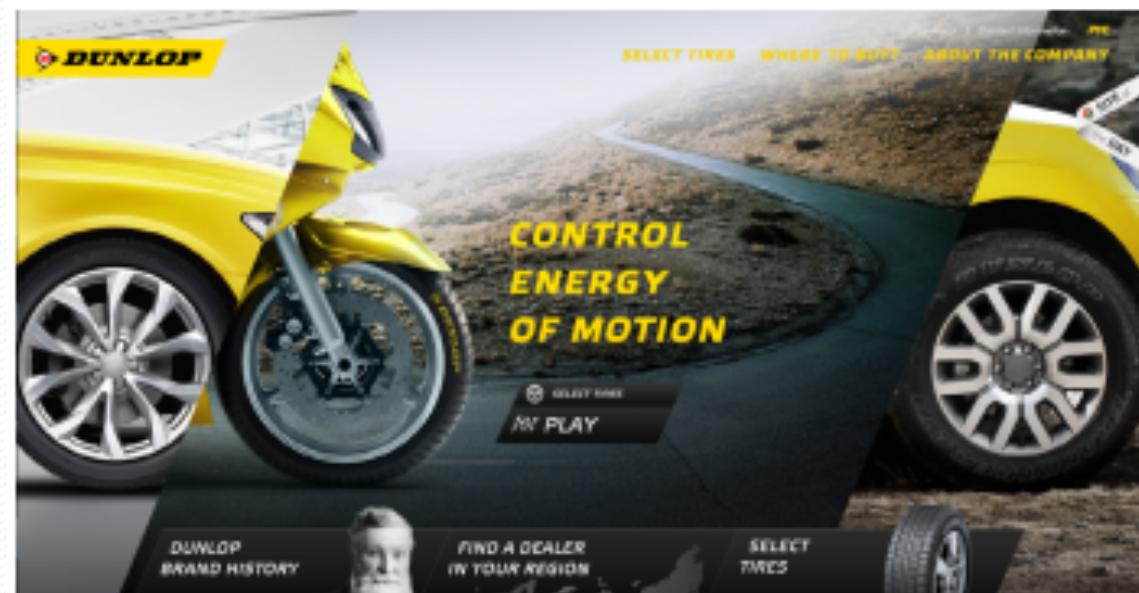
- Do you want the user to click or scroll? Enter data or click the Back button?
- **Navigation** is a series of choices and users must decide without seeing what comes next.
- The most visible places to add a **navigation menus** are horizontally and vertically



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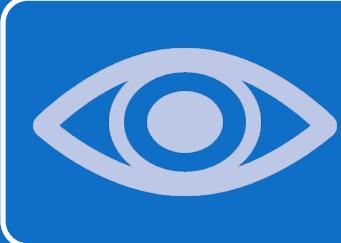
Animations



Animations

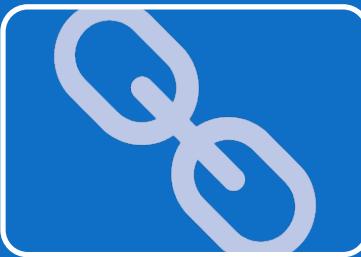
- Animations are fun.
- They're useful and can surreptitiously add a lot to your UI without the user even knowing it.

Animations



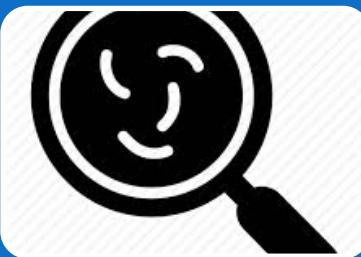
The eye is drawn to movement

- An animated icon will signal a change to the user much more effectively and less jarringly than a flat change



Establishing connections

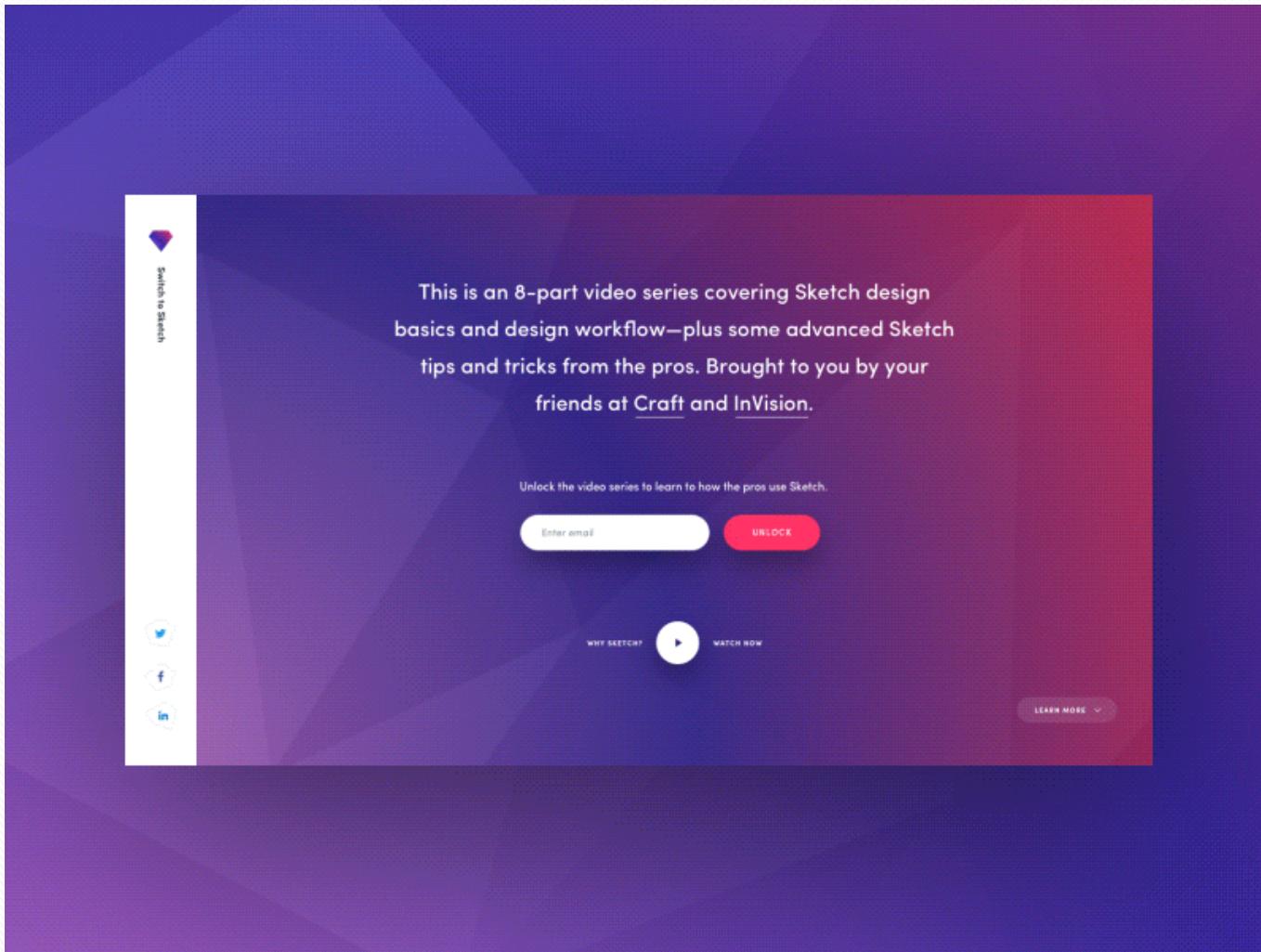
- Animations make excellent transitions → the site more coherent



Cues and clues

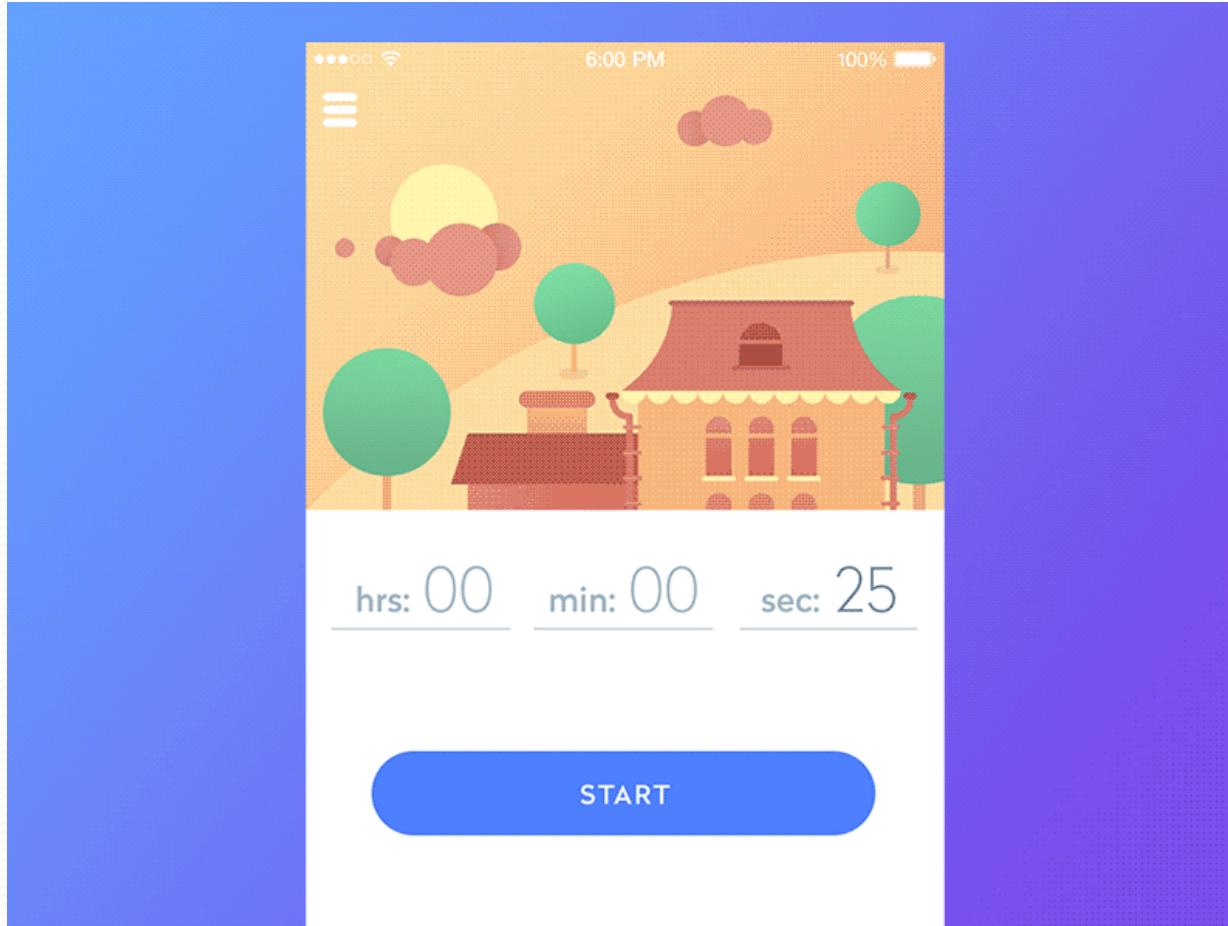
- An animation is great for signaling that a task is accomplished
- Similar animations: draw connections between two tasks
- Well-thought animation can even suggest actions to the user

Animations: Example



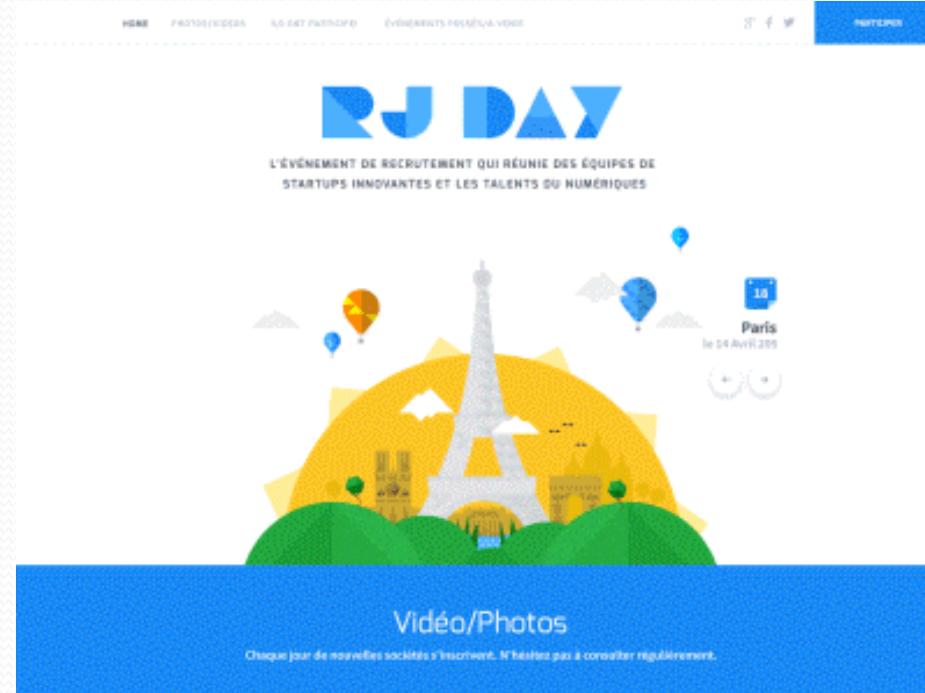
Animations: Example

This fun animation by Sergey Valiukh has purpose and then some—most notably, the transition from AM to PM.



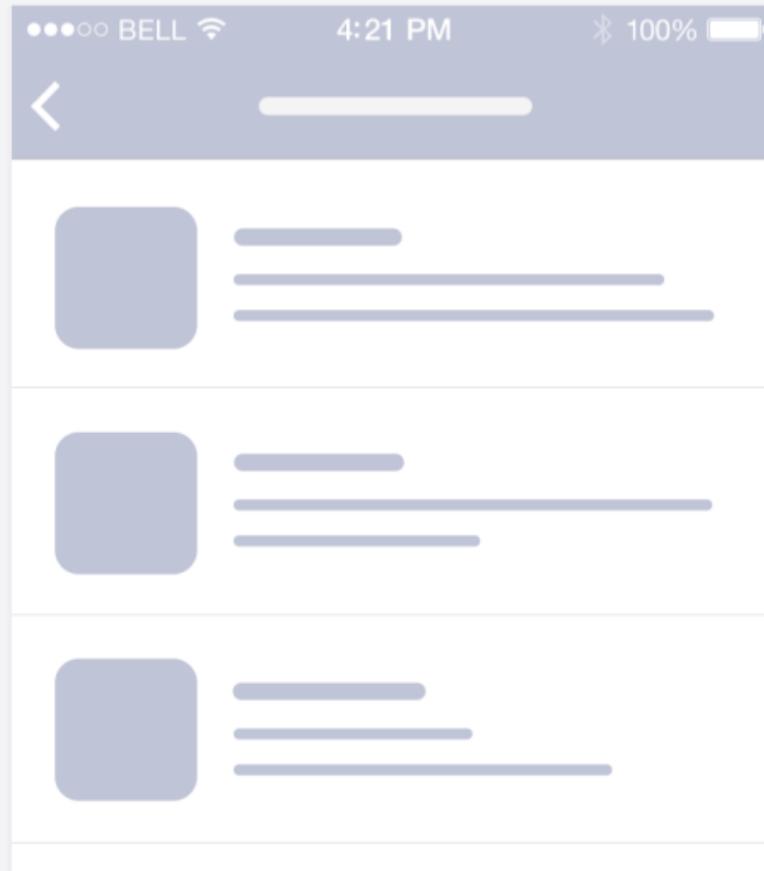
Animations: Example

Remix Jobs is great at keeping animations interesting without overdoing it. Nice, smooth transitions using the **material design** methodology.



Animations: Example

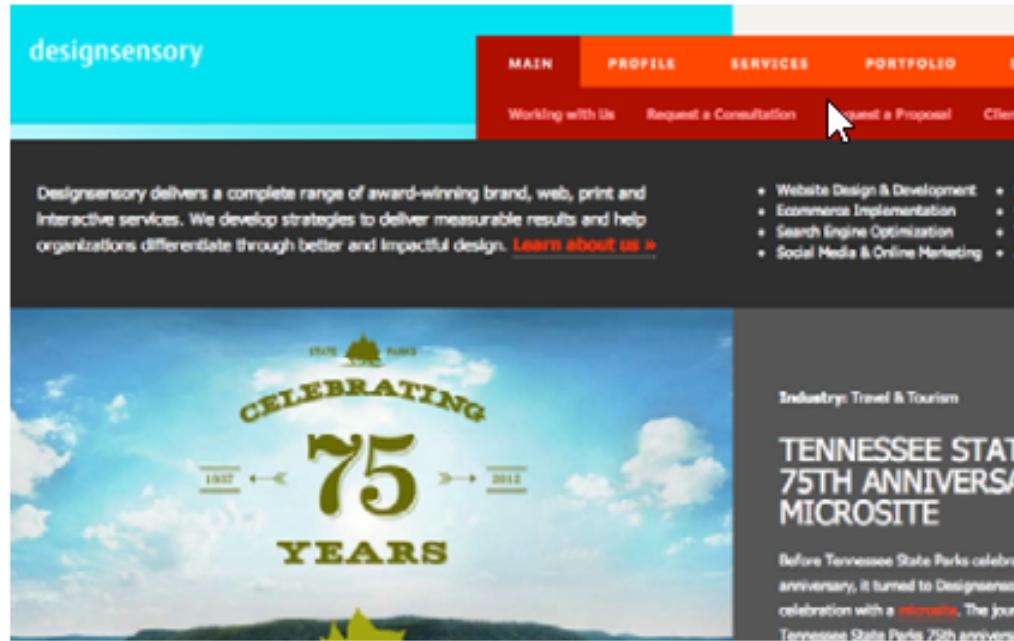
The Ramotion team shows us a nice example of thinking about animation/transitions during the wireframing stage.



Animations: Example

- **Menus with panache**
 - Animations are trickier to add to navigation menus, but they can add striking detail to the interface.
 - Make sure that the speed is quick enough to capture attention, but not so quick that it feels disorienting.
 - Links should also be easy to access and provide plenty of space for clicking

Example: 1. Menus with panache



- **Design Sensory** uses a top-level menu along with submenu links.
- Hover over each top link, the new submenu options appear below ➔ quick access to all the menu links while still providing enough “breathing room” for clicking.

Example 1: Menus with panache



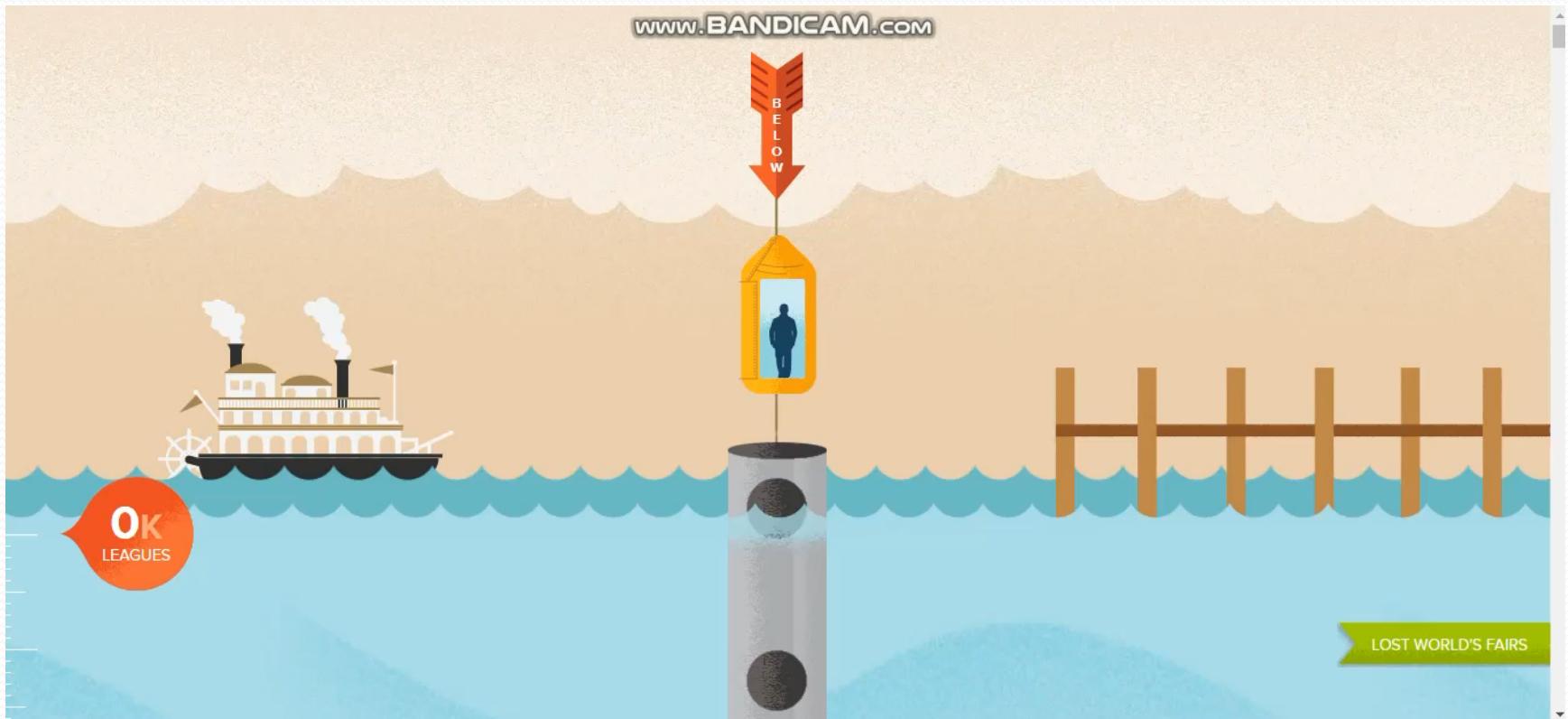
- **Cabedge** uses a dropdown animation effect which blends in perfectly into the paper-like feel of the site.
 - In the top ribbon, hover over any of the links to trigger a quick hover effect.
 - If your cursor stays on the link for 1-2 seconds, then a sub-menu animates and drops downwards.
- The effect makes the interface feel fun and presents more content without clutter.

Example 2: Parallax background scrolling

- **Parallax sites** will usually have background images which change as you scroll downwards, creating the effect of 3D motion
- **Static page elements** follow the user downwards.

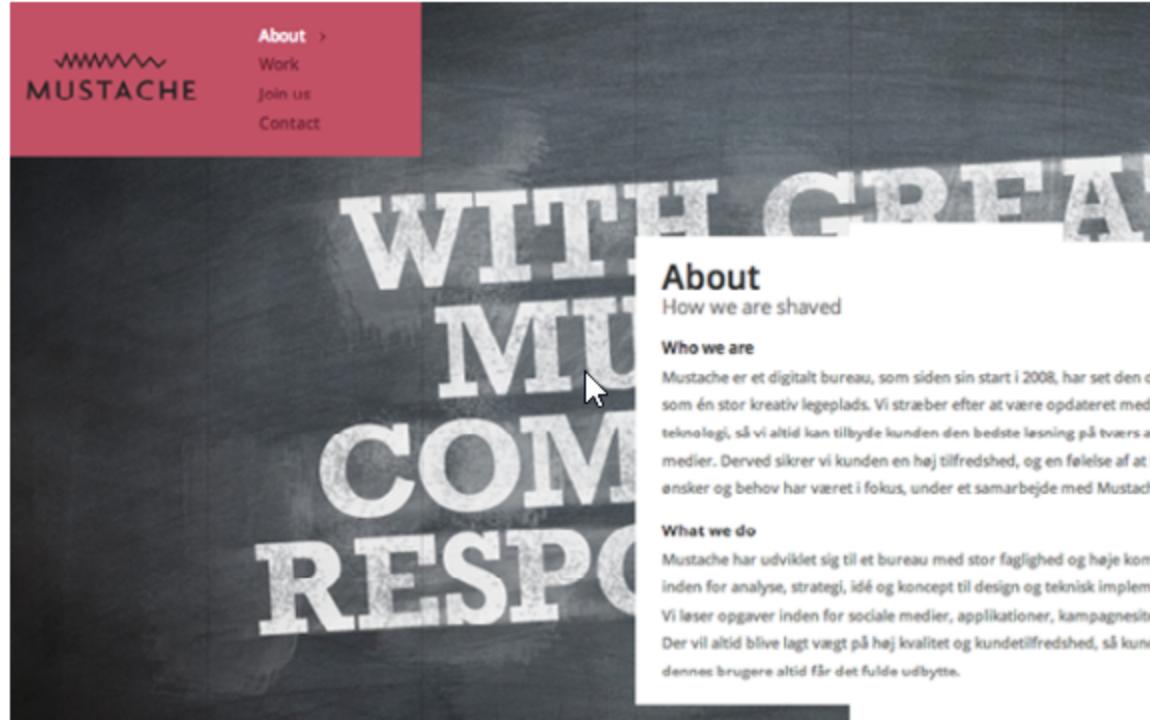


Example 2: Parallax background scrolling



Example 3: Webpage transitions

- **Mustache**, animated transitions can be executed with a nice Ajax effect that doesn't force refreshing of the page.



Example 3: Webpage transitions



Animating the transitions between pages makes the website experience feel like a friendly guided tour.

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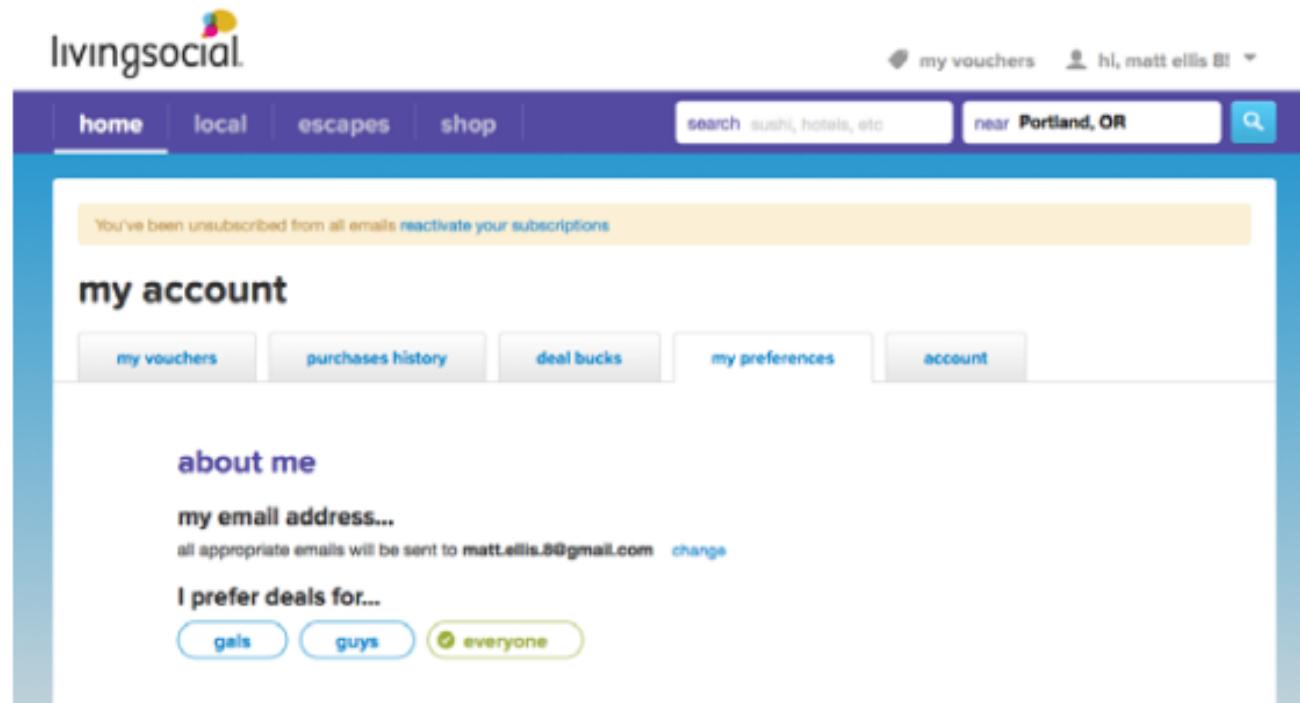
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Default Settings

- Users will rarely change the default settings, even if customization options are available → it's on you to get it right the first time.
- As a UI designer, you have the responsibility of foreseeing how the user wants their settings before they even use the site.
- Use the default settings to instigate the actions you want the user to follow.

Default Settings

- Living Social takes a smart approach by making the default audience for email deals “everyone”, which encourages users to forward deals to people of the other gender



Default Settings

- Only use **default settings** when:
 - your back-end can make qualified guesses regarding user preferences
 - or that you know those defaults benefit the user.
- When it comes to input fields, do not use defaults for anything that requires user thought
 - e.g. signing up for newsletters or accepting terms of use

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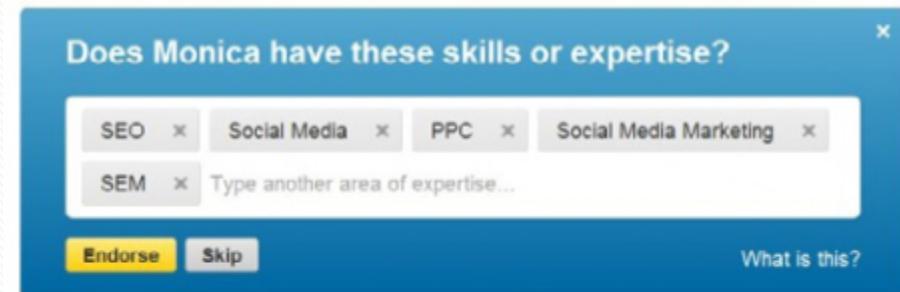
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Guided Actions

- People are open to suggestion → you can encourage deeper involvement, interaction, and even feedback — as long as the action you're suggesting isn't cumbersome

Example: LinkedIn

- Whenever the user opens the page, there are usually prompts to actions, for example, endorsing your connections' skills.
- People like helping their friends, so prompting this action works because it's something they want to do, but may not have thought of it on their own



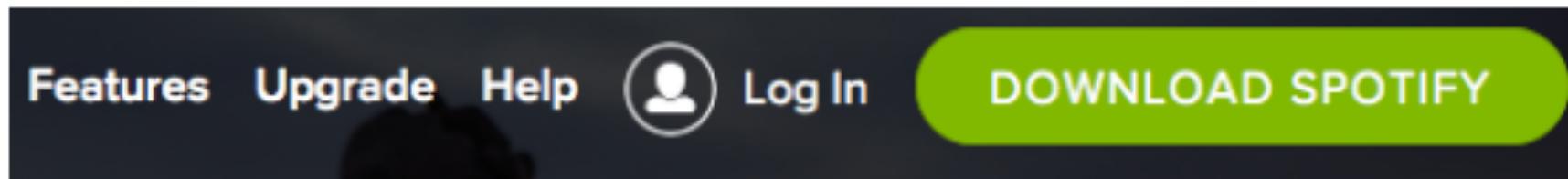
Monica Wright
Community Editor at Search Engine Land
Portland, Maine Area | Internet

Current Marketing Land, Search Engine Land,
monicawright.com
Previous Hall Internet Marketing, SEOmoz, MicroArts
Creative Agency

LinkedIn

Example: Dmitry Fadeyev

- Points out that guided action can be used on a more subtle level by emphasizing *key functions, controls, and buttons*.



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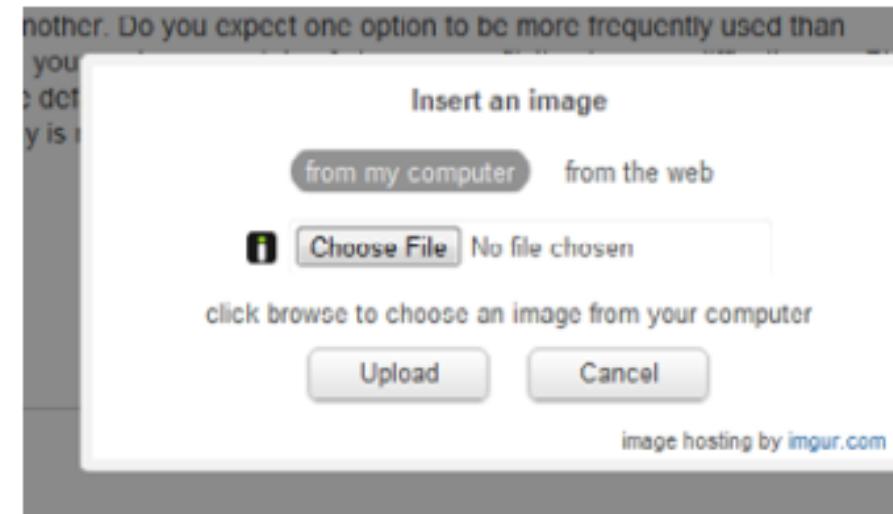
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Visual Clarity & Language Clarity

- One of the marks of a bad UI is confusion, usually resulting from when controls, functions, or other elements aren't fully explained.



source: Imgur



source: Stack Exchange

Guideline for clarity

- **Simplicity is key**
 - Don't overload the user with too many functions or controls.
- **Check your wording**
 - Proper wording can solve problems of confusion, while poor wording causes them.
- **Avoid contradictions**
 - Keep language consistent.
- **Avoid overstating**
 - Over-explaining can produce the opposite of the desired effect.
- **Hover explanations**
 - There's no better way to clear up confusion over icons without cluttering your screen.

Visual Clarity & Language Clarity

- Make sure that your website provides **user feedback**
- Breaks down complex actions into simple steps.

Visual Clarity & Language Clarity

Submit An Announcement

Click here for guidelines and more information about submitting wedding and celebratory "Vows" video series, to The Times.

Type of Celebration

Legal Marriage
 Civil Union
 Commitment Ceremony

Legal Date of Marriage (Not Ceremony)

Bride

Title

First Name (required) Middle Name

Last Name (required) Suffix

Date of Birth (required)

Education

Occupation (required)

Contact Information

Email Address (required)

Photographs
No photos

1. Create Account **2. Contact Information**

Step 1: jQuery Tools Account

Please enter your login information:

1. Enter Your Email Address *

Your password will be sent to this address. Your address will not be published.

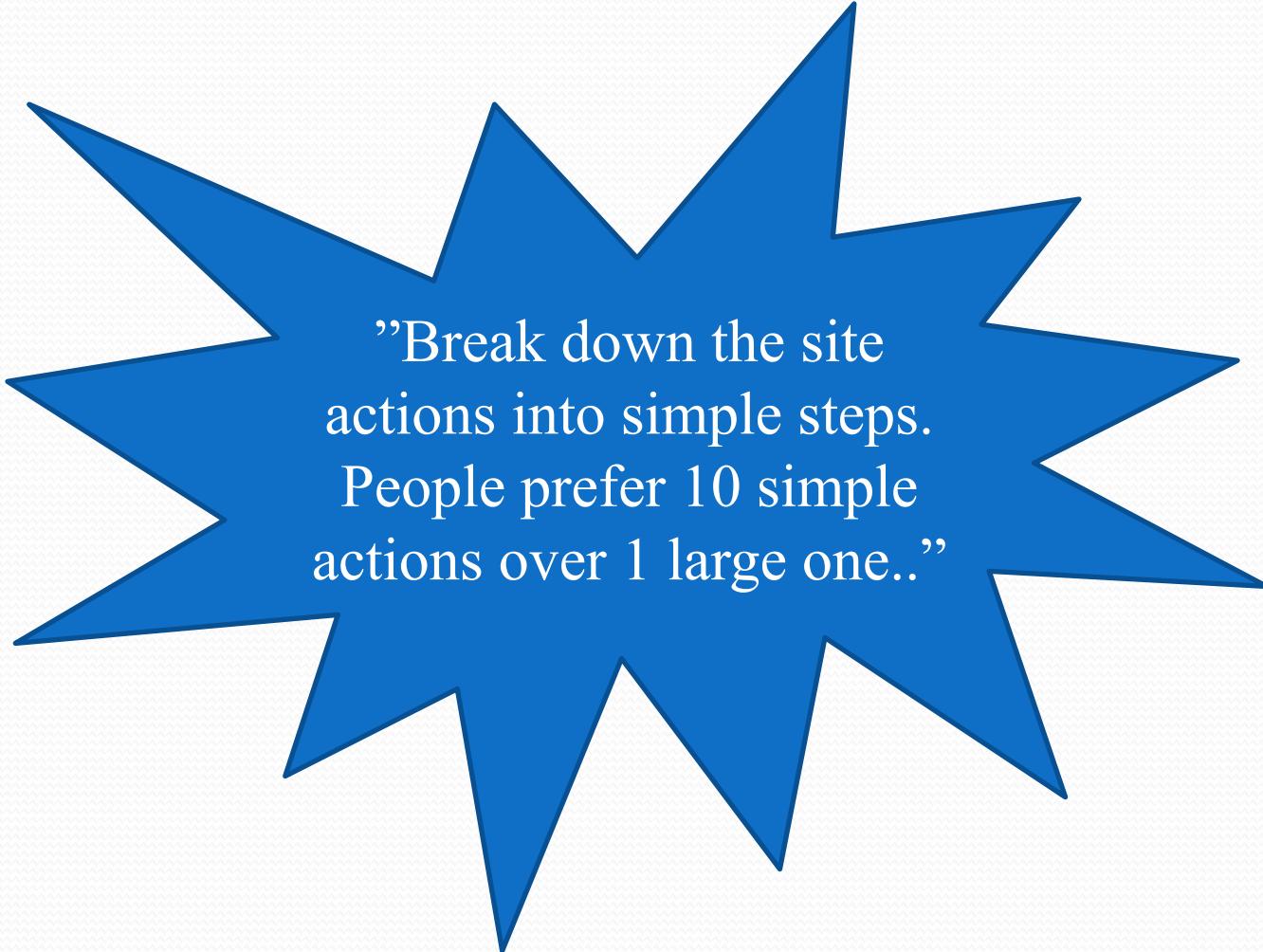
2. Pick a username

Your preferred username to be used when logging in.

3. Choose a Password * **Verify Pass**

Must be at least 8 characters long.

Visual Clarity & Language Clarity



”Break down the site actions into simple steps. People prefer 10 simple actions over 1 large one..”

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The "MAYA" Principle

- Your goal as a UI designer is: to create the greatest, most extremely new and original interface that goes far beyond the average user's wildest dream
- We've provided advice on how to ensure your UI is as sleek and streamlined as possible, it's important to keep the MAYA Principle in mind as a checks - and balances methodology.

The "MAYA" Principle



The "MAYA" Principle

- **Familiar Visual Metaphors**

- the actions on your site should have roots in actual tasks the users have experience with.
- for example, users embraced scrolling and slider functions when they were introduced because they resembled flipping through pages or notebooks.

- **Traditional Fallback Options**

- different users will have different comfort levels. Offering a “traditional” option in addition to a new and different one will give users a sense of security - even if they never use it.

- **Sensible Scope**

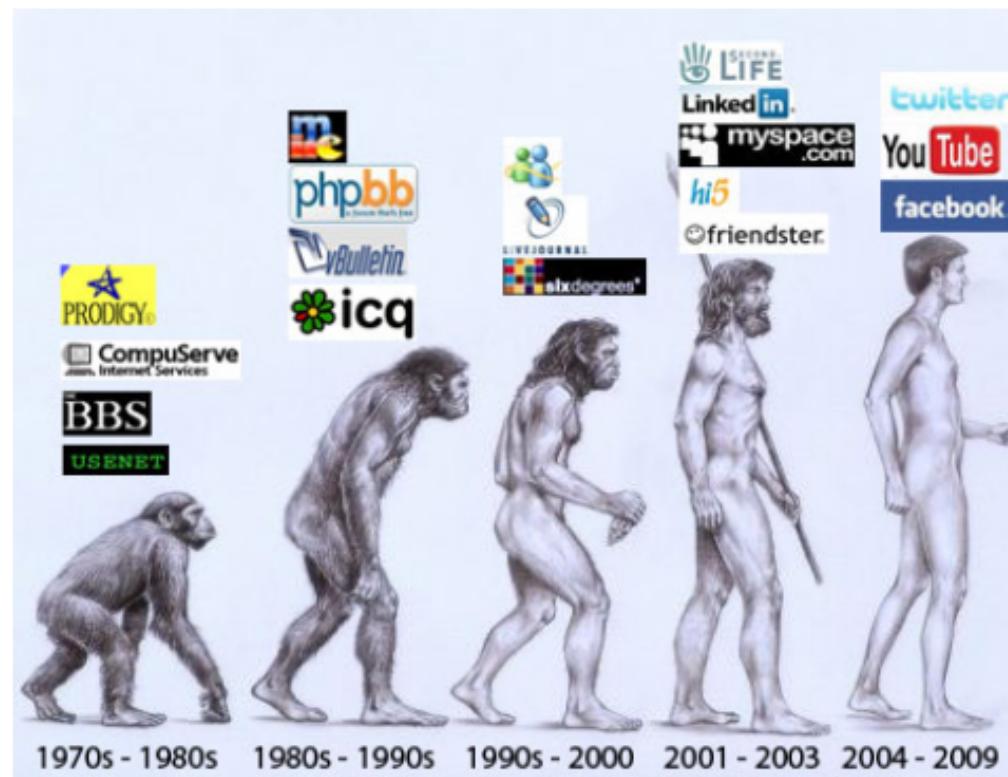
- don’t reinvent the wheel. Unnecessary additions touted as “new,” “better,” or “improved” only frustrate the users.
- if you’re putting in the effort to create something groundbreaking, make sure it’s truly worth it

The "MAYA" Principle



The "MAYA" Principle

- One of the most important factors for new and different designs is **pacing**.
- Its best to unveil your brilliant new idea in small doses and incremental updates as opposed to all at once



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Takeaway

- An **INTERFACE** is more than pretty visuals → users can accomplish their goals on your website.
- Done properly, **input controls** can add fun and interaction to a normally boring process.
- **Navigation** should be shaped around content, like a pleasant boulevard guiding users to their destination.
- **Animations** add life to the interface, and **guided actions** and **default settings** help read the user's mind without feeling invasive.
- **The MAYA Principle** ensures clarity by serving as a gut-check on your interface

Bài tập lab4

- **Bài tập cá nhân:**
 - Tạo một trang Web có nội dung bất kỳ, sử dụng linh hoạt tất cả những phần sau: Input Controls, Navigation, Animations, Default Settings, Guided Actions
 - Có biểu mẫu liên hệ
- **Bài tập nhóm:**
 - Tiếp tục cập nhật Group Diary cho tuần này, phân công công việc cho từng thành viên.
 - Có biểu mẫu liên hệ
 - Cập nhật lại bài tập của nhóm để đảm bảo có sử dụng Navigation, Animations, Default Settings và Guided Action
 - Chú ý: Tất cả các chức năng trong project phải có cả phần thiết kế (gồm ảnh thiết kế trên giấy và file thiết kế) và file html → cập nhật vào website cả 3 loại file này.
 - Up lên host



Reference

- **Web UI design best practices**, Dominik Pacholczyk