Development of Internet Applications

WebDesign

Ing. Michal Radecký, Ph.D.

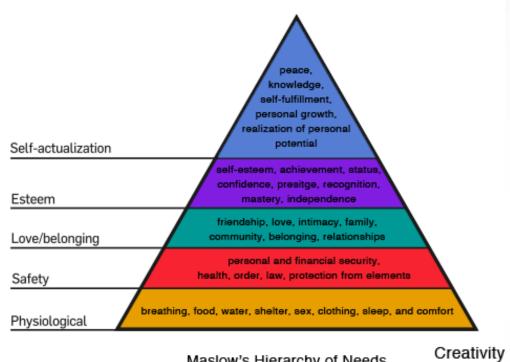
www.cs.vsb.cz/radecky

What is the WebDesign

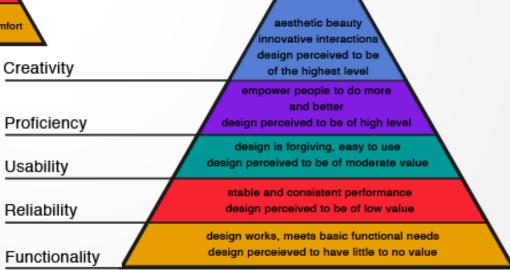
 Web design is an multidiscipline that uses the knowledge of visual communication, interaction design, psychology (especially influencing and decision making), marketing, branding, copywriting, gamification and other fields. The goal of web design is to create a **functional website** or web application.



Maslow's pyramid



Maslow's Hierarchy of Needs

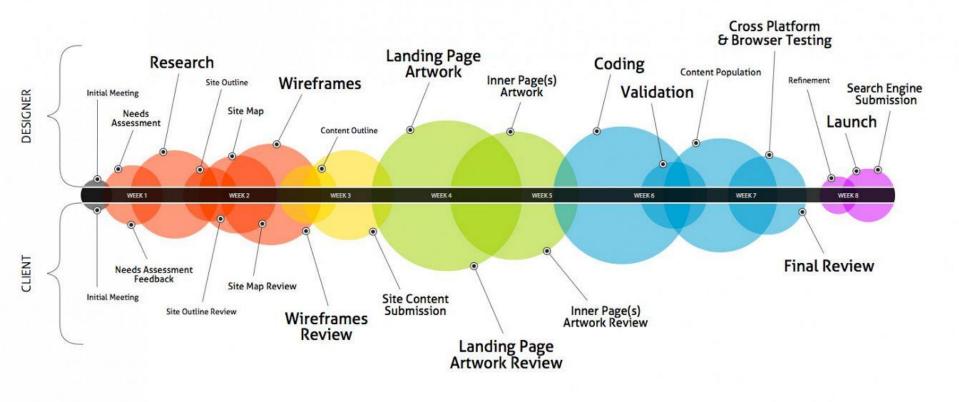


Web development

- Web development is not just about design, it's a key part of it
- The web design often covers a range of activities (necessary to meet needs and prepare for implementation)
 - Requirements specification who will be the user, how the site will be used, what will be presented, technical constraints, specific features, etc.
 - General design of the solution and its process consideration of needs, design of technical solution, specification of plans and procedures, cost, formalities, etc.
 - **Research and discovery** competitor analysis, design manual, definition of content and structure, etc.
 - **Designing** wireframes mockups prototype
 - Presentation and review introduction, feedback, problem vs. solution
 - **Design implementation** deliverables for next phases
- Next phases: implementation, content creation, testing, deployment, maintenance, updates, promotion, etc.

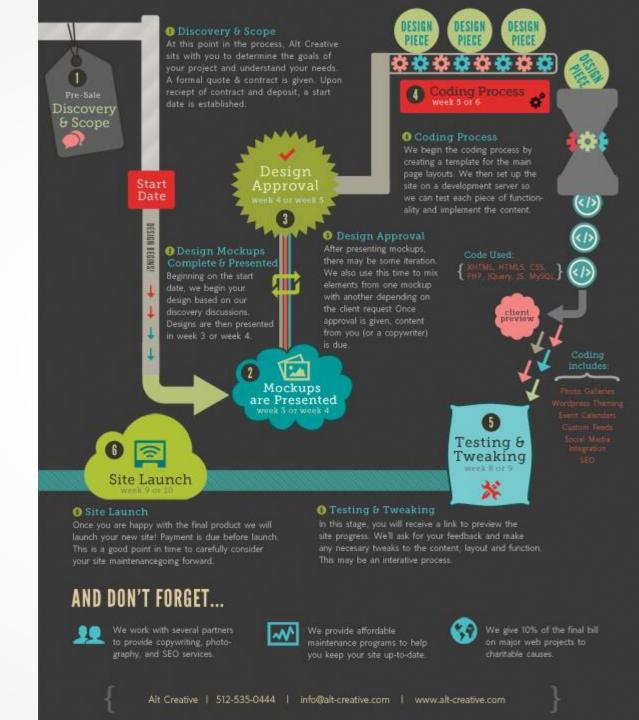
Web design lifetime

A Web Site Designed
MILESTONES, INVOLVEMENT, IMPORTANCE & TIMELINE





Web design lifetime



Wireframe – mockup - prototyp

- Wireframe

- Schematic representation of the interface at different depths of detail
- Emphasis on layout, functionality and overall concept

- Mockup

- Fully visual model for presentation and commenting
- Emphasis on visual appearance, form and perception of detail

- Prototyp

- Fully visual and functional model for testing
- Emphasis on user interaction and functionality, simulation of functionality in a real environment (web browser)

User eXperience

- "User experience" encompasses all aspects of the end-user's interaction with the company, its services, and its products.
- The first requirement for an exemplary user experience is to meet the exact needs of the customer, without fuss or bother. Next comes simplicity and elegance that produce products that are a joy to own, a joy to use. True user experience goes far beyond giving customers what they say they want, or providing checklist features. In order to achieve high-quality user experience in a company's offerings there must be a seamless merging of the services of multiple disciplines, including engineering, marketing, graphical and industrial design, and interface design.
- It's important to distinguish the total user experience from the user interface (UI), even though the UI is obviously an extremely important part of the design. As an example, consider a website with movie reviews. Even if the UI for finding a film is perfect, the UX will be poor for a user who wants information about a small independent release if the underlying database only contains movies from the major studios.



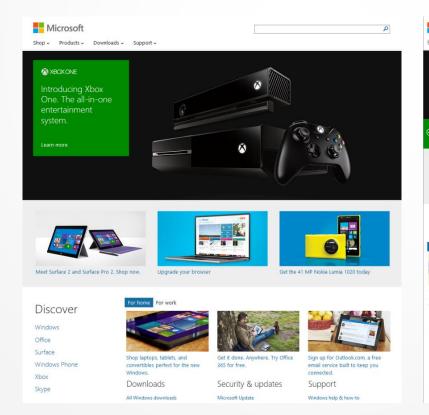
Content first

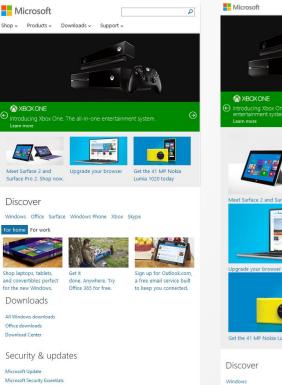
- Content determines design
- Information for the target audience is more effective than just a "nice" design without information
- Emphasis on "Call To Action"



Responsive design

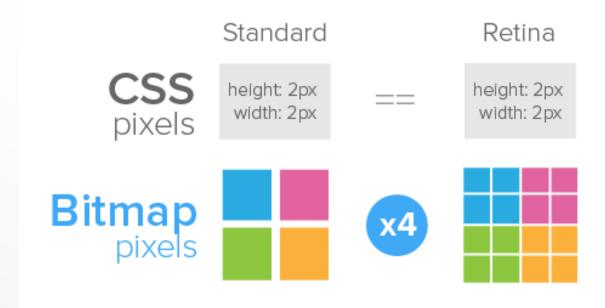
- It's not just about the look, but primarily about the content and features offered
- User Experience "User Driven" approach
- CSS3 @media queries





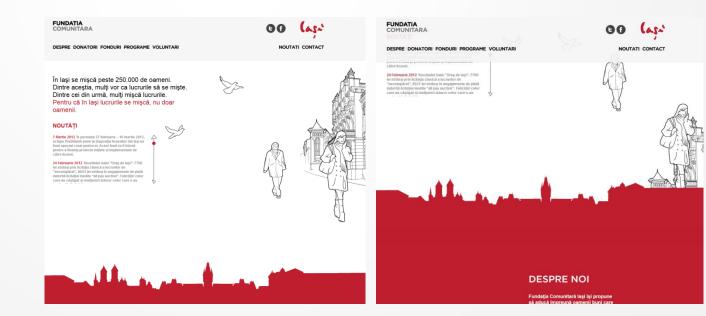
High quality images

- Physically 2x more pixels = finer graphics at the same resolution
- Need to supply higher resolution bitmap graphics or vector graphics
- Apple postfix @2x for double resolution images
- CSS3 media queries device-pixel-ratio (2)



Fixed/flow elements

- Static positioning of elements even when scrolling content (headers, menus, buttons)
- Dynamic positioning of floating elements with respect to scrolling position (advertising, graphic elements)
- CSS position: fixed, JavaScript pageYOffset



Square/circle design

- Use of basic shapes in a simple style
- Inspiration from Modern UI/Metro UI Windows

- Effective implementation of "grid layout"

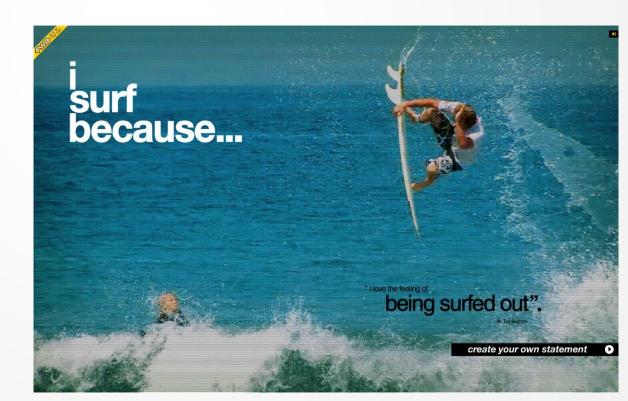
- Full use of browser width
- CSS floating, round-corners





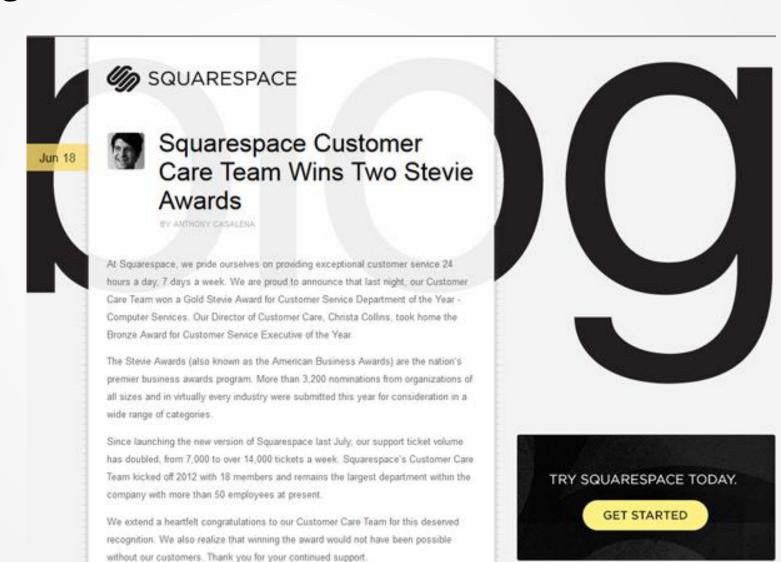
Big sized photos/videos/backgrounds

- Large-format photo used as a background (dynamic size adjustment)
- Not only as a supplementary graphic, but also as a functional element (portfolio, user interaction)
- CSS3 background, HTML 5 video element



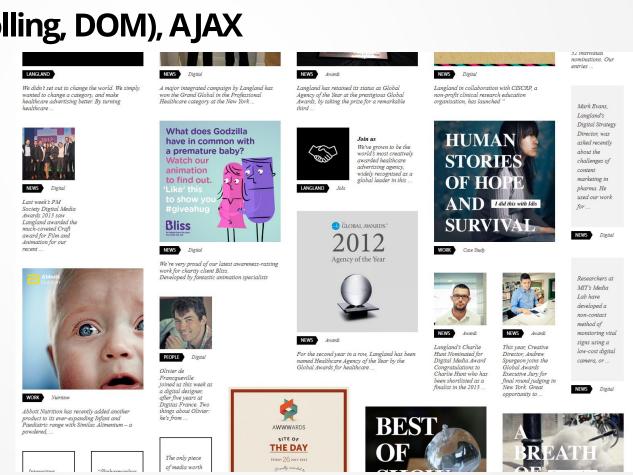
Opacity, shadows, animations, ...

- CSS3 rgba, box-shadow, transition, animation, ...



Lazyloading, scrolling

- A user-friendly way to provide large amounts of data within straightforward functionality
- Sequential loading of content modifying page content
- JavaScript (scrolling, DOM), AJAX



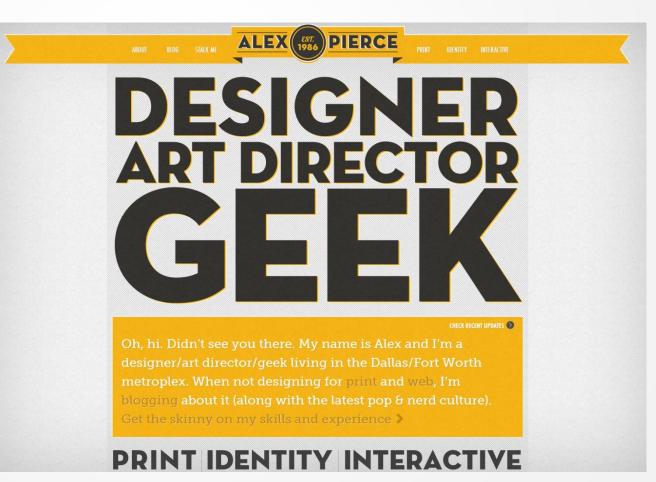
Typography

Possibility of using custom fonts for the textual content of the website

- Emphasis on typography and form of information

presentation

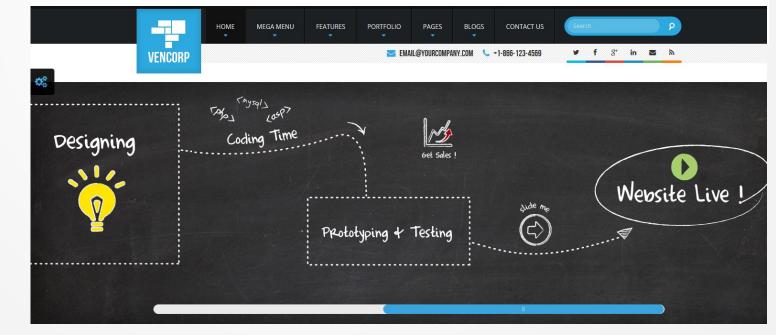
CSS3 font-face



Animated elements/paralax

- Animation of a specific part of the page (usually called a slider) with respect to user interaction
- CSS3, JavaScript





Single-web page design

- Design of information content within a single page (using common navigation elements)
- Design of sections within
 a "long" page, often with animation when
 moving between sections
- HTML anchors, JavaScript

