

A story of web pages & design (cont'd)

Raghav V. Sampangi, Ph.D.

Instructor, Faculty of Computer Science, Dalhousie University

raghav@cs.dal.ca

Content Organization and Design

C.R.A.P!

How C.R.A.P.py is your design?

C: Contrast

R: Repetition

A: Alignment

P: Proximity

CRAP!

How C.R.A.P.py is your design?

- **Contrast:** Avoid elements on the page that are similar.

E.g. colour: use distinct colours that are complimentary – that differentiate elements

For colour, use something like Paletton (paletton.com), which lets you create colour palettes

Similarly, use mechanisms to differentiate elements - content, ads, headings, body, comments, etc.

CRAP!

How C.R.A.P.py is your design?

- **Repetition:** Repeat visual elements of the design throughout the piece.

E.g. use consistent styling for similar elements on the website.

Consistent theme elements or branding throughout your website implies using the same colour, shapes, formatting for all pages.

If you have a style for links, use the same style for links throughout your website. Don't change it for some pages.

CRAP!

How C.R.A.P.py is your design?

- **Alignment:** Nothing should be placed on the page arbitrarily.

i.e. Ensure all elements are aligned to other elements on the page.

Then, all elements are visually connected to all other elements.

Once again, be consistent and align elements properly.

CRAP!

How C.R.A.P.py is your design?

- **Proximity:** Items relating to each other should be grouped closer together.

i.e. If three elements belong to the same category, group them.

This ensures that **related elements become one visual unit** rather than remain as independent units.

This also helps organize information and reduces clutter.

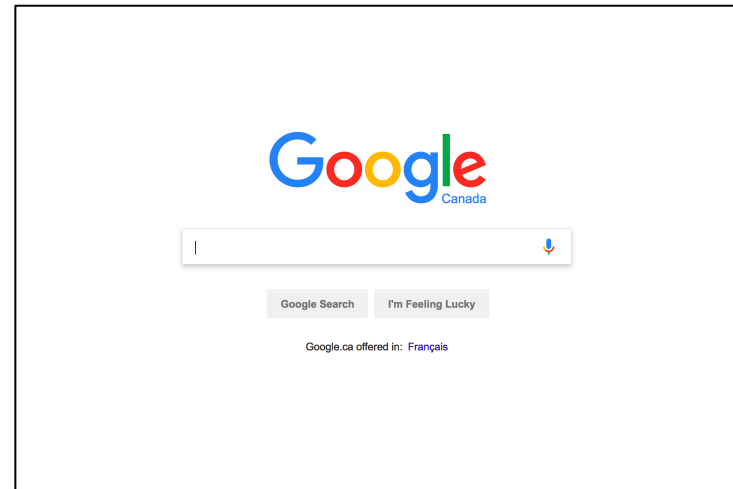
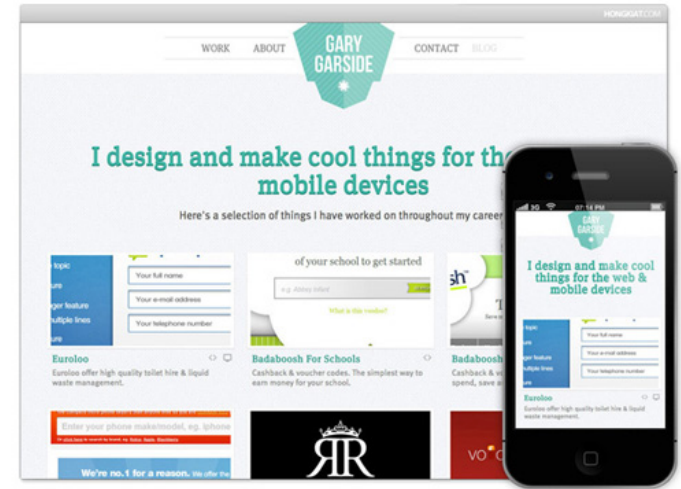
Makes it easier for the user to find information they're looking for.

Content Hierarchy

- An effective design allows users to perceive the website as a cohesive unit; this can be achieved through ***content hierarchy***
- This is an important aspect of web pages/sites
- Related to the C.R.A.P. principles
- Allows for visual relationships between design elements to be formed
 - Any element that breaks this design system will have more visual value through styling
 - E.g. size, colour, scale, texture, depth, white space

Content Hierarchy

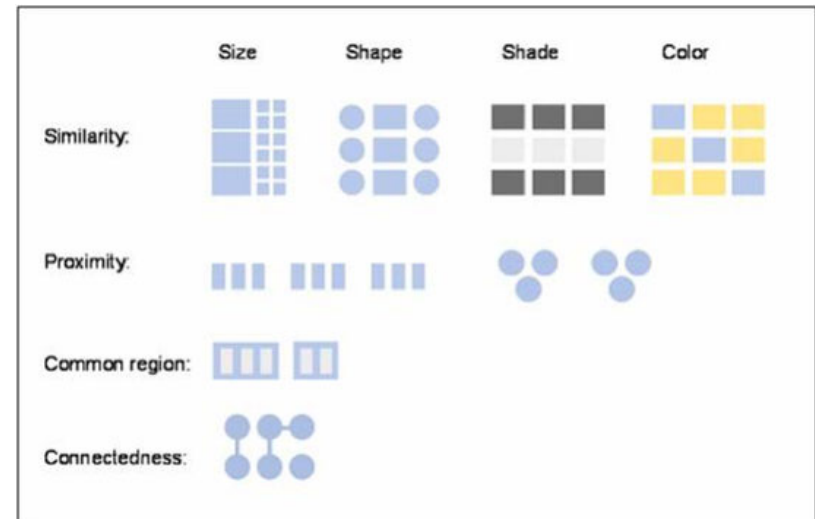
- White space
 - *Don't think of this as last resort, or as what's left after everything else is designed*
- Helps readability, and the user's ability to scan a page
- Involves careful use of:
 - Margins
 - Gutters
 - Padding
 - Line spacing
 - Paragraphs
 - Spacing



Content Hierarchy

Gestalt Principles of Perception

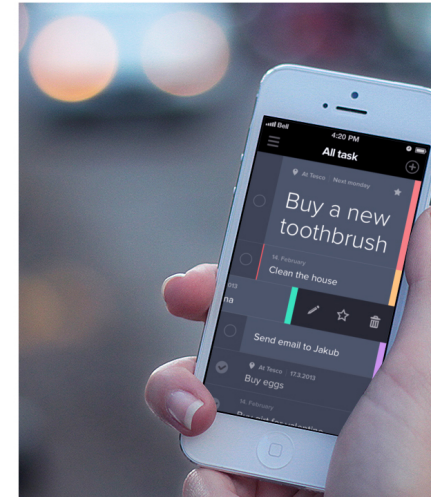
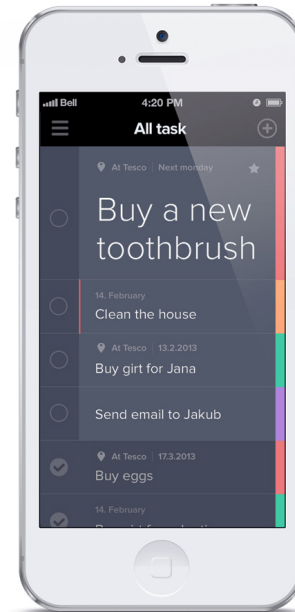
- Developed in early 20th Century
- Related to the mind's ability to group elements based on perceived relationships
- Based on:
 - Similarity
 - Continuation
 - Closure
 - Proximity
 - Common region
 - Connectedness
 - Size
 - Shape
 - Shade
 - Colour



Content Hierarchy

Gestalt Principles of Perception

- In web development, design elements are much more than just, well, design elements...
- Design elements make up the user interface (UI)
- They are what users interact with, and what users come back for...
- E.g. Navigation, search bars, headings, buttons, forms, tables, calls to action, etc.



Content Hierarchy

Gestalt Principles of Perception

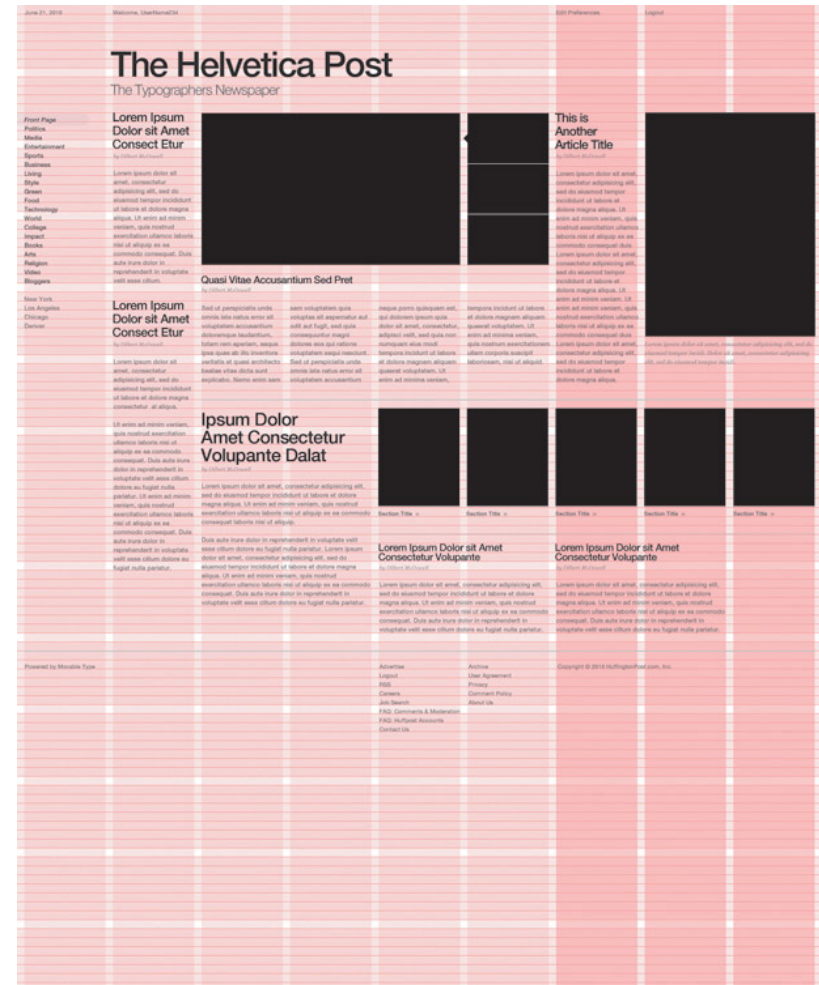
- “Containment”
- How would you present this relationship on a web page?
- Containment can be achieved through:
 - Borders
 - Lines
 - Boxes
 - Stylized using CSS



Content Hierarchy

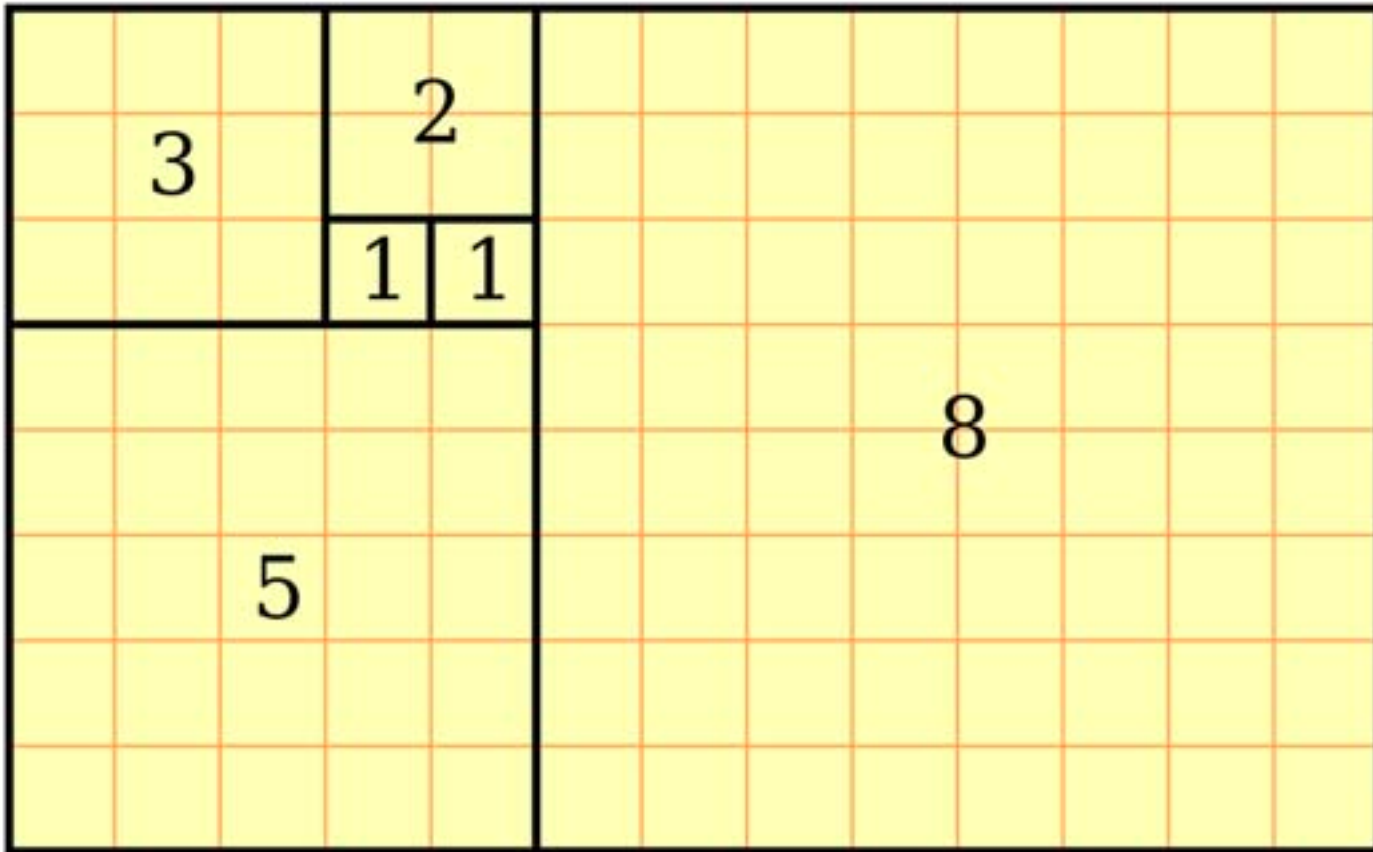
Grids

- Focuses on proportion rather than simply lining up elements
- Based on mathematical ideas of Pythagoras
 - Use ratios rather than single units
 - E.g. the Golden Ratio



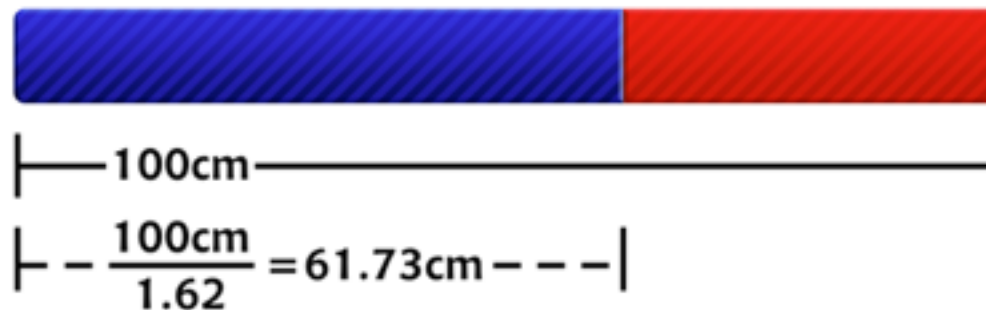
Sidebar: The Golden Ratio

“Approximately equal to a 1:1.62 ratio, the Golden Ratio can be illustrated using a Golden Rectangle: a large rectangle consisting of a square (with sides equal in length to the shortest length of the rectangle) and a smaller rectangle.”



Sidebar: The Golden Ratio

- The Golden Ratio is also known as the “divine proportion”
- Represented by ϕ (and, $\phi = 1.62$)
- If you want to compute dimensions using the Golden Ratio, divide the total length by ϕ



Content Hierarchy

Grids

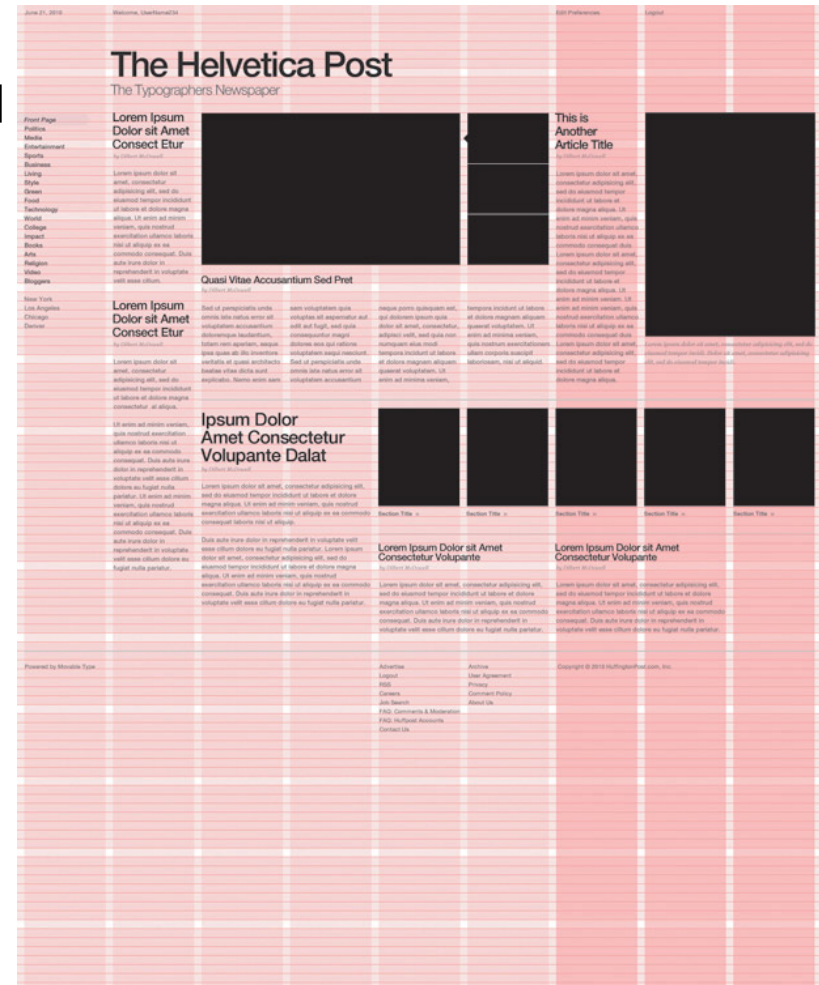
- The Rule of Thirds
- A simplified version of the Golden Ratio
 - *A line divided by ϕ results in 2 sections*
 - Section 1 is approximately 2x the size of Section 2



Content Hierarchy

Grids

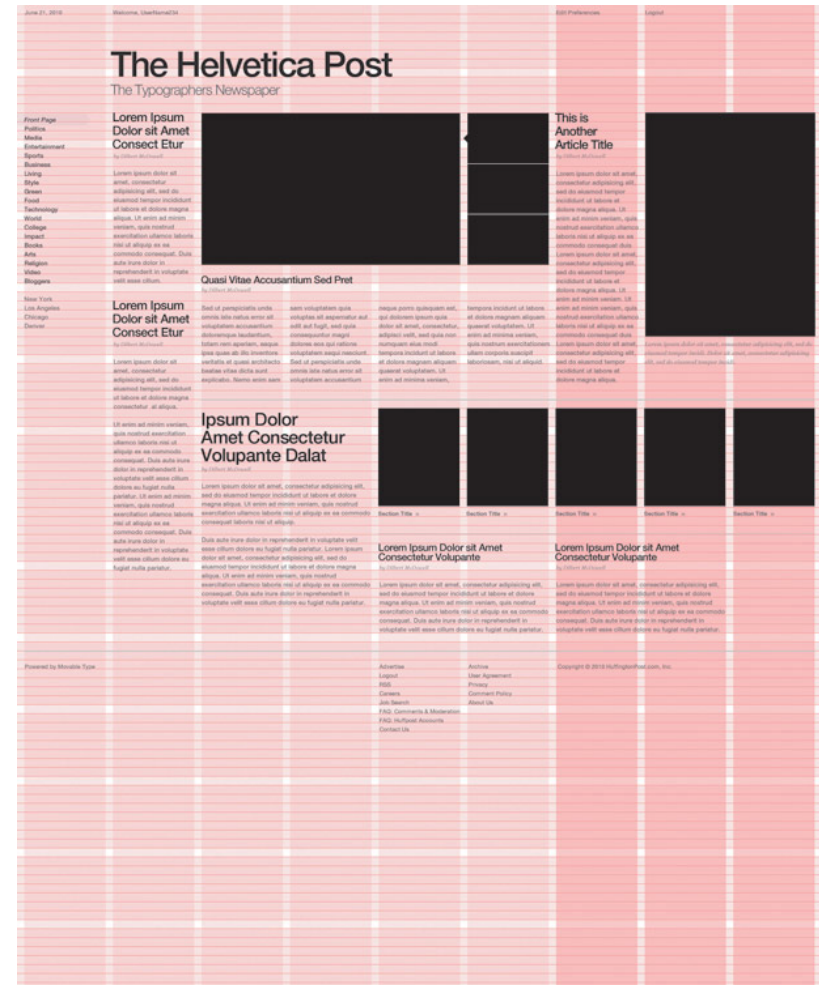
- Create a balance of Figure and Ground (Gestalt principles)
- Grids help organize elements and space within a design
- DON'T USE TABLES AS A WAY TO CREATE GRIDS / LAYOUTS
- Must be based on proper HTML tags and CSS properties
- E.g. <div>



Content Hierarchy

Grids

- Baseline Grid
 - Horizontal grid system that aligns the baselines of all text
- It involves:
 - Choosing a type (font) size
 - Choosing a line-height
 - All measurements should be multiples of the line-height



Content Hierarchy

Grids

- Modularity
 - Creating reusable design elements
 - Must fit within the applied grid system
 - Increases the efficiency design and Usability
 - Allows for designs to be flexible to various lengths

