

Graphical User Interface

Chapter Five GUI Guidelines

Editor

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Chapter Description

- **Aims**

- ✓ To understand the GUI guidelines.
- ✓ To explain the GUI basic design elements
- ✓ To differentiate between desktop design, web design and mobile design.



- **Expected Outcomes**

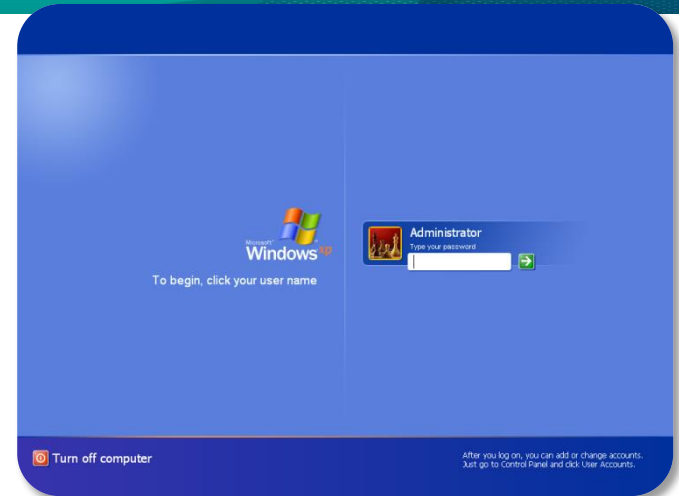
- Understand the GUI guidelines.
- Able to use the GUI design elements in good manner.
- Able to design different GUI for different platforms.

- **References**

- ✓ Wilbert O. Galitz, The Essential Guide to User Interface Design: An Introduction to GUI Design Principles and Techniques, John Wiley & Sons Inc, 2007.
- ✓ Jenifer Tidwell, Designing Interfaces, O'Reilly, 2011
- ✓ Jeff Johnson, Designing with the Mind in Mind: Simple Guide to Understanding User Interface Design Rules , Morgan Kaufman Publisher, 2010

Chapter Contents

- Basic Design Elements
- Windows Design
- Web Design
- Mobile Design

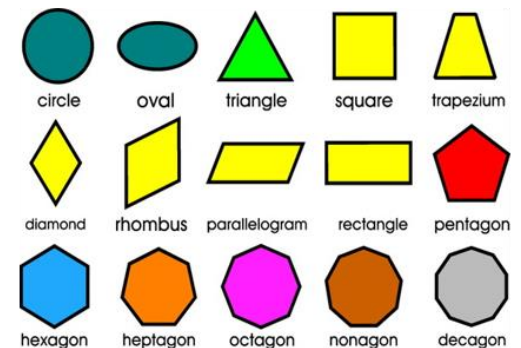
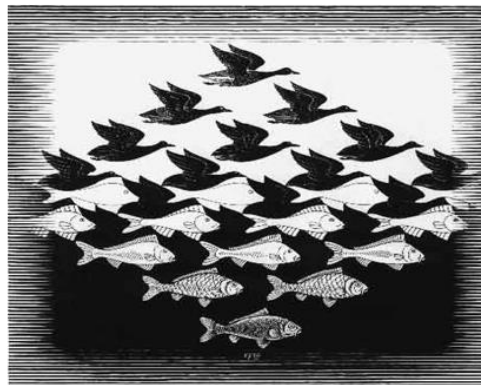
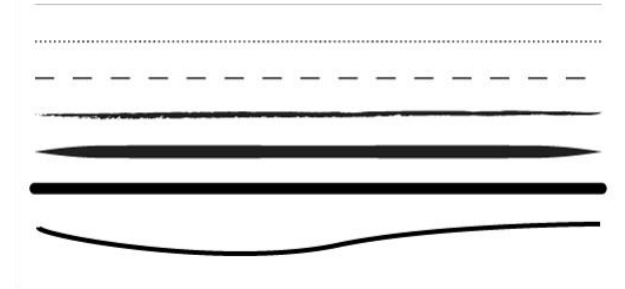
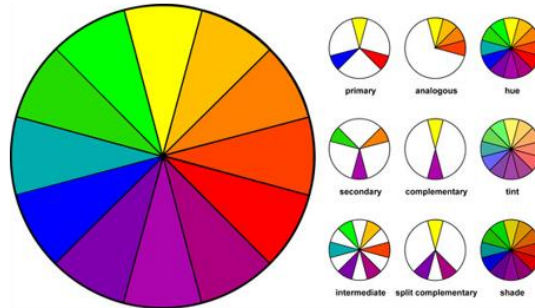


Basic Design Elements

The elements are components or parts which can be isolated and defined in any visual design or work of art. They are the structure of the work, and can carry a wide variety of messages.

The elements are:

- Point or Mark
- Line
- shape
- space
- Color
- Pattern
- Texture



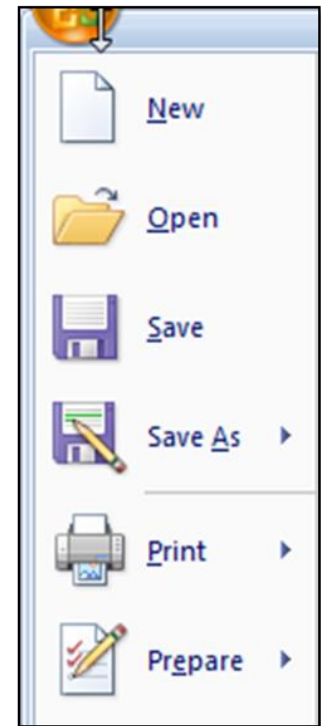
Basic Design Elements: Principles of Design

- Proximity
- Visual Hierarchy
- Symmetry / Asymmetry
- Repetition
- Unity
- Contrast
- Dynamics
- Emphasis



Proximity

- The basic theory of proximity is concerned with the **arrangement or categorization of elements that relate to one another**



Visual Hierarchy

- Visual Hierarchy arranges elements to create focal points by positioning their priority within a concept as a whole.



Visual Hierarchy

- Study your design concept and take note of what attracts your eye first, where do you look next and how does your eye move around the visual elements of your design?

Symmetry / Asymmetry

- The principle of alignment focuses on the placement of graphical elements and their relationship to each other and as a whole.
- Alignment helps to create unity and balance.
- Balance is the concept of **visual equilibrium (balance)**, combination of opposing elements in a composition that results in visual stability.

Repetition

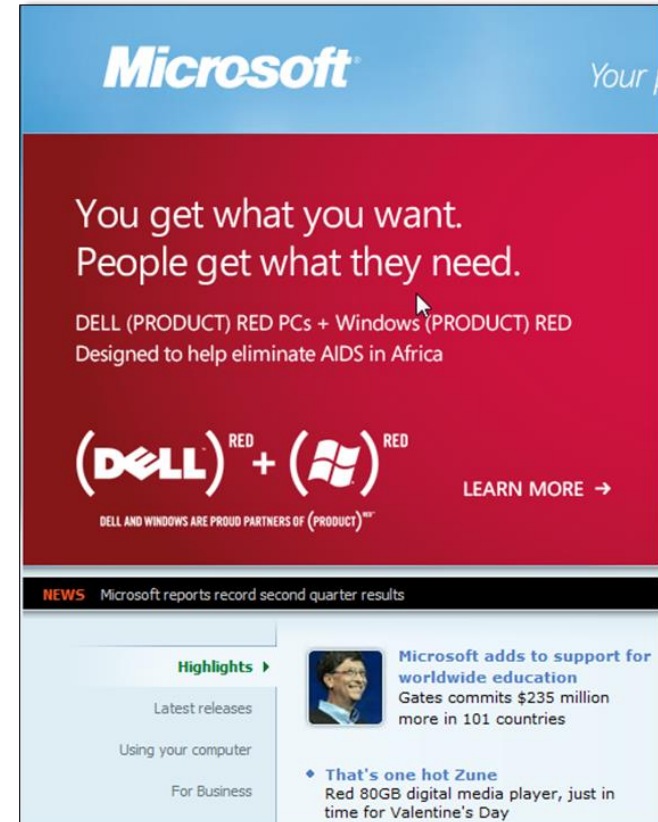
- Repetitive elements throughout a design piece can be used to **enhance and clarify information**.
- Repetition **adds visual interest to your design**, and helps to identify elements that belong together.
- The consistent repetition of graphic elements works **to create visual unity**.
- These elements can be as simple as **colour, spatial relationships, a shape, a texture or a typeface**.
- Repetition of **color, shape, texture or object can be used to tie a work together**.

Unity

- Unity is the underlying principle that sums up all of the principles and elements of design.
- Unity refers to the combination of all elements successfully working together to achieve a sense of harmony in your design.
- This can be achieved through the **consistent use of graphic elements**.
- **Using repetition or patterns** is one of the most basic factors in creating a strong sense of unity.
- Unity is a measure of how the elements of a page seem to fit together - to belong together. A unified work of art represents first a whole, then the sum of its parts.

Contrast

- An effective use of contrast enables you to add interest to your design by **highlighting specific graphic elements.**
- Contrast is most effective when it is strong; **the focal point of a design is usually a result of contrast where the eyes will naturally be drawn.**



Dynamics

- Dynamics is the arrangement of visual elements in a composition to suggest the illusion of movement or direction.
- The effective use of dynamics in a design can add an **emotive characteristic** to your design making it appear **restful and calming or active and energetic**.

Rhythmic

Arrhythmic

Random

Directional

Emphasis

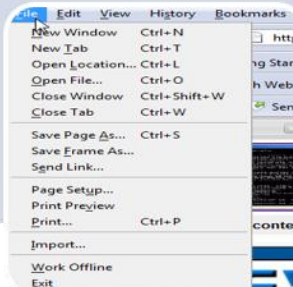
- Emphasis refers to the focal point or centre of interest of a composition.
- This is an area that is visually dominant and eye-catching that a designer has emphasized through the clever placement of graphic elements.



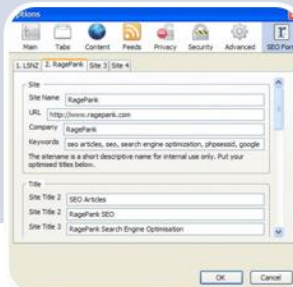
Human-Computer Interface Design



Command Line



Menu Selection



Form Fill in



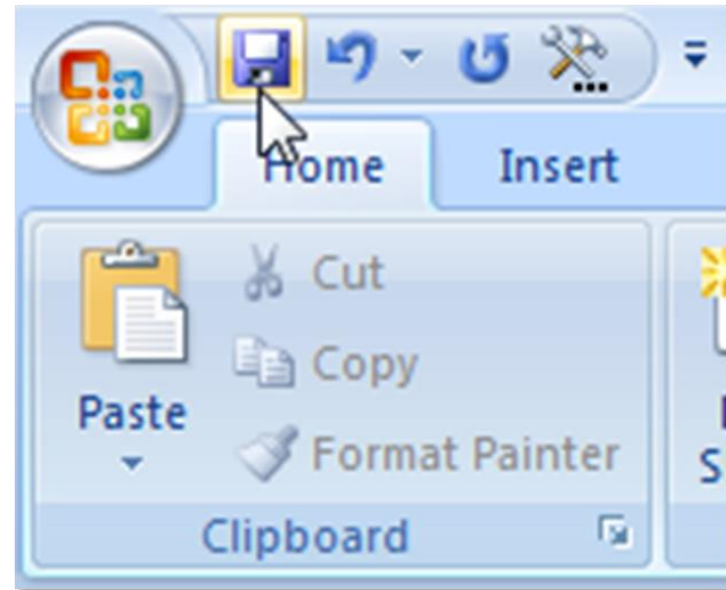
Direct Manipulation



Anthropomorphic

Windows Design

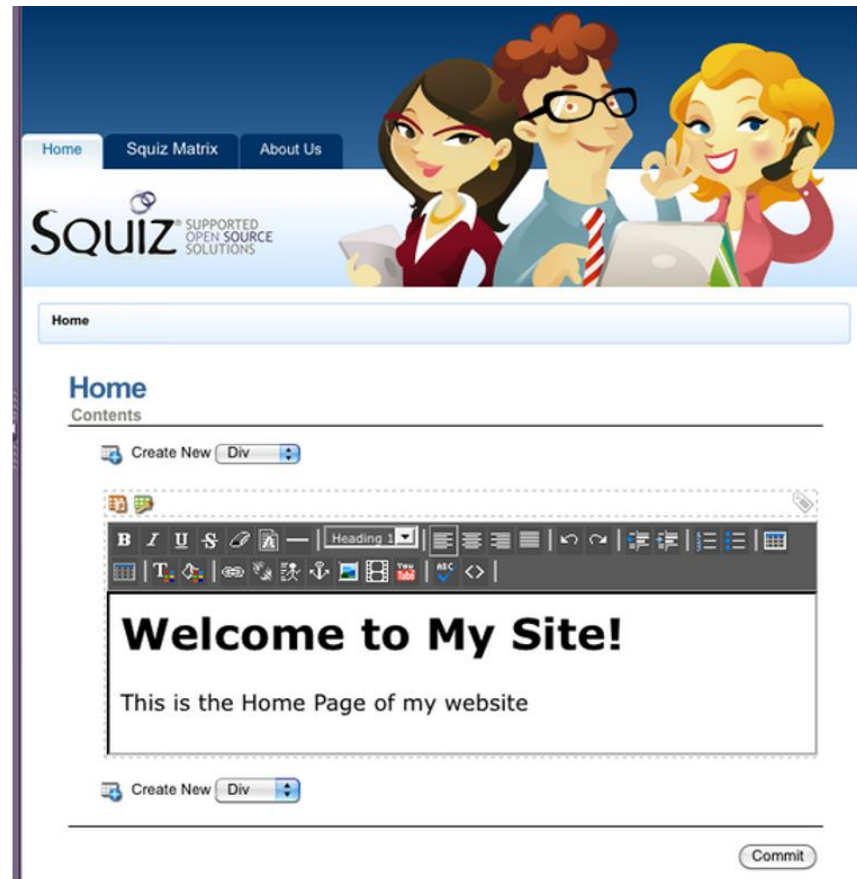
- Pick & Click Interaction
- Pick - identify element for a proposed action
- Click - signal to perform an action



Windows Design

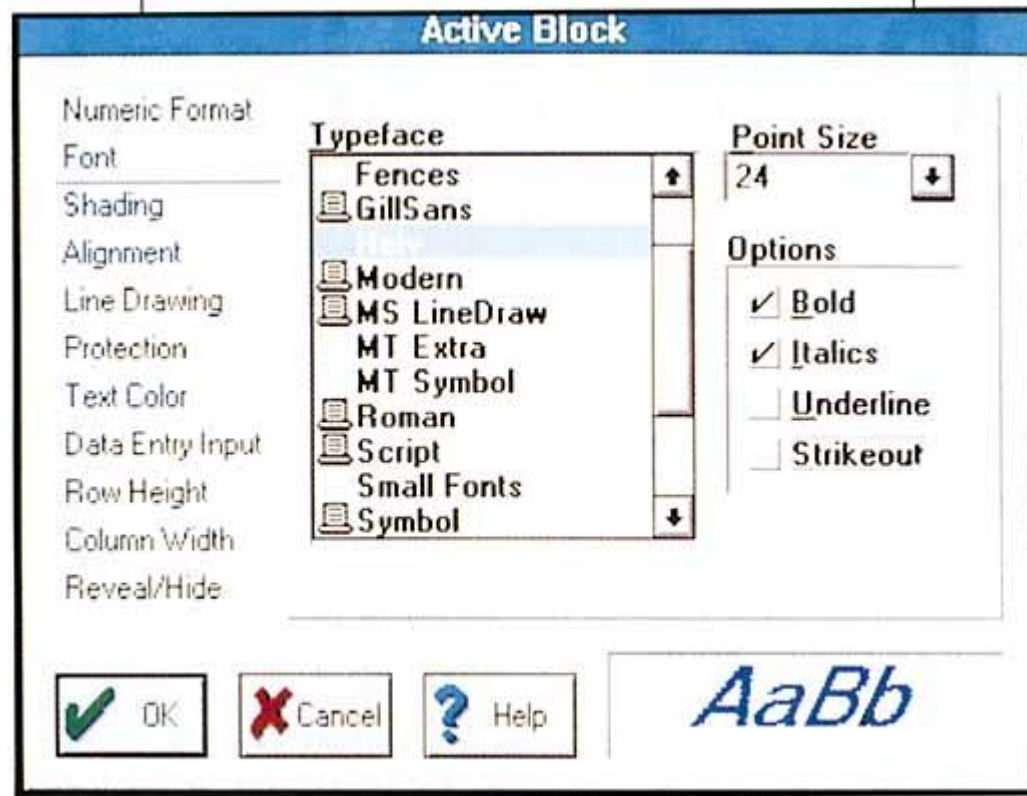
- Restricted Set of Interface Options – using WYSIWYG concept.

**what you see is
what you get**



Windows Design

- Object Orientation

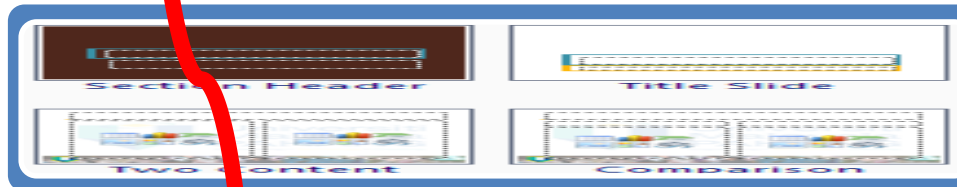


Web Design

- What so different Web and Desktop?
- Web features:-
 - OS Independent
 - Web browsers
 - HTML Script
 - Client side/server side script
 - It uses INTERNET.



Basic Web Design Principles



Layout



Navigation



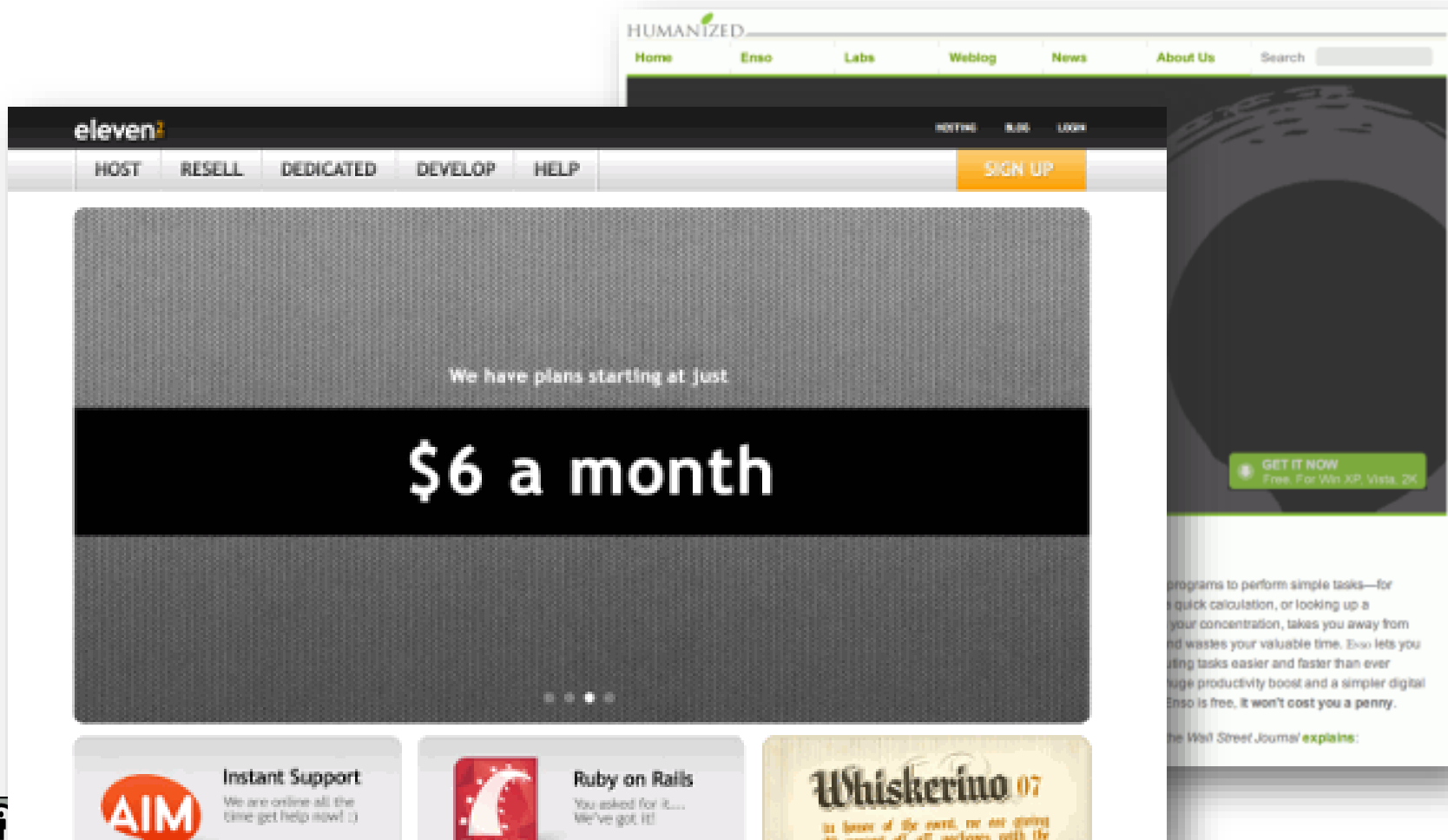
Color



Fonts

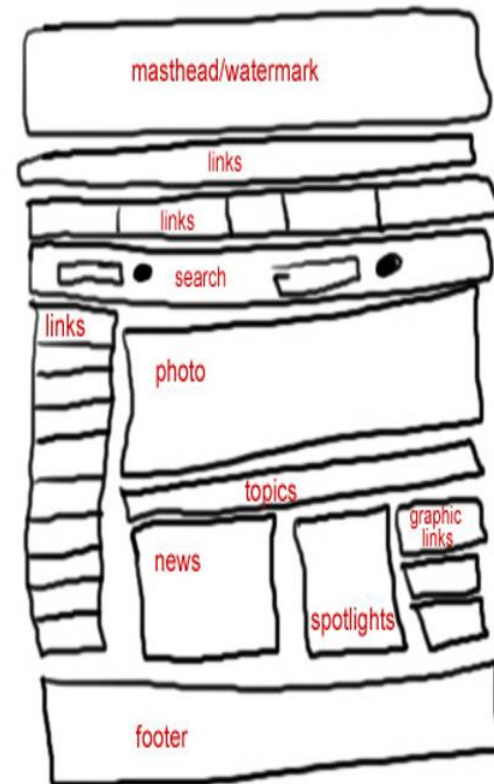
How about other
media? Animation?
Audio? Video?
Connection Speed?

**Effective Web Design



Web Page Elements

- Page title in the browser title bar
- Tittles of page
- Links to main topic areas in site
- Link to corporate identification
- Link to home, search and site map
- Link to copyright page
- E-mail link to webmaster



*wire
framing
U.T.
Homepage*

How do users think?

- **Users appreciate quality and credibility.**
- **Users don't read, they scan.**
- **Web users are impatient and insist on instant gratification.**
- **Users don't make optimal choices.**
- **Users follow their intuition.**
- **Users want to have control.**

Users Eye Tracking

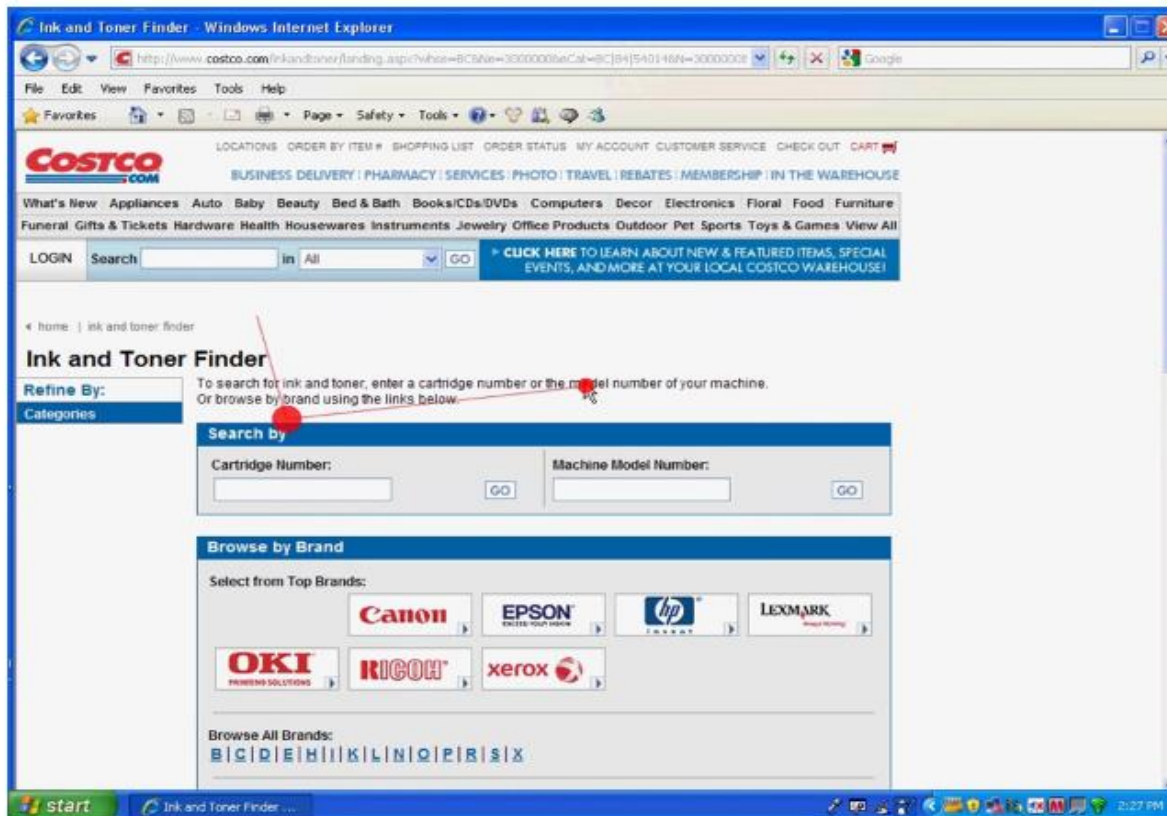


Viewing a homepage

by Jay Eskenazi
5 months ago

Example:

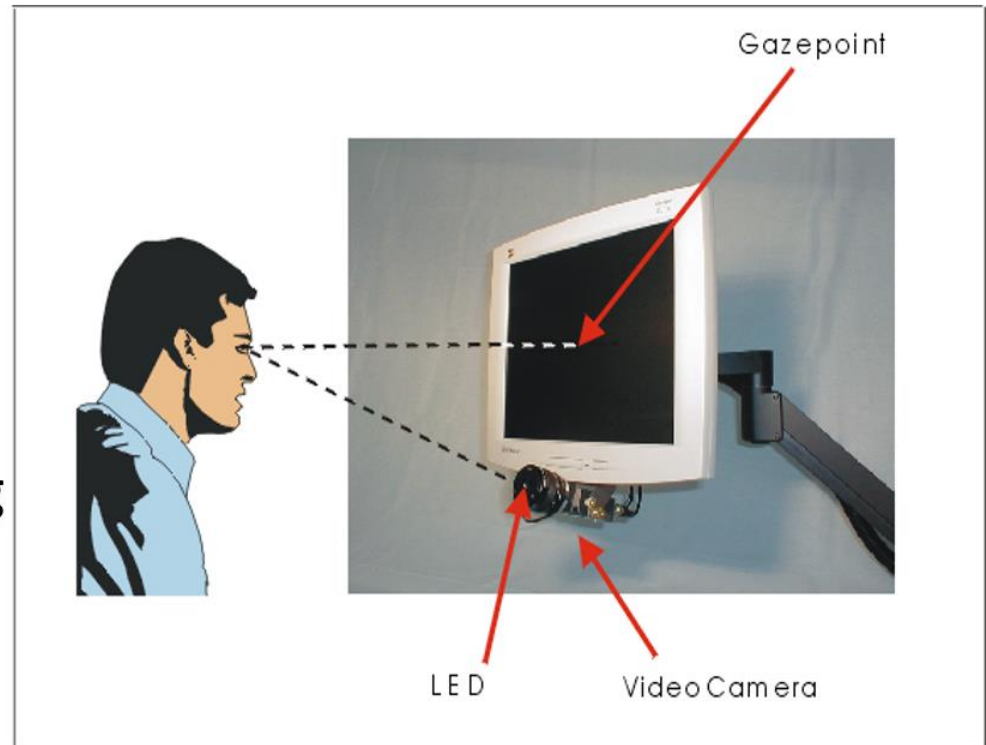
<http://vimeo.com/31097865>



BY NC SA

What is Eye-tracking?

- Eye-tracking is a technique used to determine where a person is looking.
- Track the movements of the user's eyes and note what the pupils are doing while the user is looking at a particular feature.



Mobile Design

- Refer to GUI in mobile based application.
- Mobile features :-
 - Limited screen size, various
 - Limited battery life time
 - Limited space
 - Limited RAM
 - Limited processing power
- NEED special considerations with limited resources.



Mobile Devices Manufacturing Pattern

- Google Inc with Android
- Apple Inc with iPhone
- Amazon Inc with Kindle
- MIMOS with Makcik

Google™



= ??



Introducing Kindle: Amazon's Revolutionary Wireless Reading Device



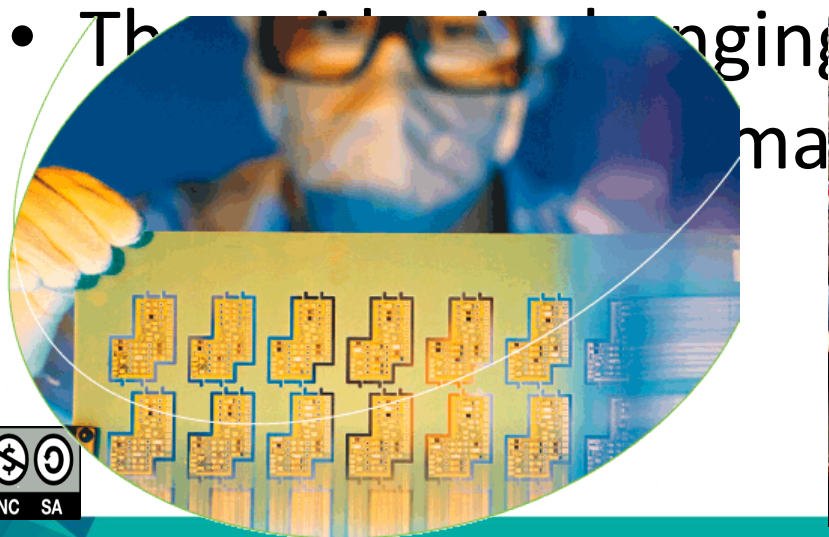
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Conclusion

- A clear guidelines in design by knowing the theoretical and practical aspect in design process would create a better and effective used of product or service.



Further readings:

1. <http://www.hed.swin.edu.au/design/tutorials/other/design/>
2. http://www.ciplex.com/article.php?article_id=102
3. <http://webdesign.about.com/od/webdesignbasics/a/aa052807.htm>
4. <http://www.allgraphicdesign.com/whatisgraphicdesign.html>
5. http://www.digital-web.com/articles/principles_of_design/
6. http://webdesign.about.com/od/webdesignbasics/Basics_of_Web_Design.htm
7. **<http://www.smashingmagazine.com/index.php/2008/01/31/10-principles-of-effective-web-design/>