# An Introduction to Graphic design

By Viraj Circar and Veena Sonwalkar

## **Basic Questions**

- What is graphic design?
- How did it evolve?
- When did the profession come into existence?
- And why?

#### **Definition**

The term **graphic design** can refer to a number of artistic and professional disciplines which focus on visual communication and presentation.

Various methods are used to create and combine symbols, images and/or words to create a visual representation of ideas and messages.

## All the pictures below are examples of Graphic Design



Bill Brant, Nude, 1952. Gelatin silver print.









Gustav Klimt: Salome, 1909 Oil on canvas, 70 1/8 x 18 1/8 in.





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When people need to necessarily express something, usually with an aim towards promotion or information dispensing, the focus becomes how best to do it.

Graphic design was born of art and technology (printing).

#### What does a Graphic Designer do?

When he gets a graphic design job, be it a poster design, book design, web design, advertising, he has to start with asking himself the following **fundamental questions**:

- What is the objective of the communication
- What needs to be said first and then next and then after that? (levels of hierarchy)
- How do you want the eye to flow through the page?
- What is the tone of voice?
- Who are you speaking to?

## Fundamental Question 1: Objectives of the communication

What is the information that needs to be passed on? When the audience reads your book/webpage/ad what's he supposed to get out of it?

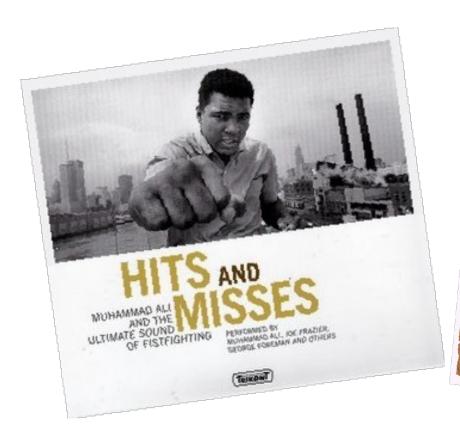




An advertisement and a newspaper have different objectives of communication.

# Fundamental Question 2: What needs to be said first and then next and then after that? (hierarchy)

Once you have figured out what the objective of your communication is you'll want to think about what needs to be said first and foremost and what it should be followed by.





# Fundamental Question 3: How do you want the user's eye to move around the page?

The hierarchy mentioned above, along with elements like color, contrast, size etc, will automatically make your viewers eyes go through the page in a certain way. This can be manipulated as per your intention.





## Fundamental Question 4: Who are you speaking to?

You have to be very sure about this as different people need to be spoken to differently, just the way it is in real life.





## Fundamental Question 5: What is the tone of voice?

Only once you have got the above figured out can you think about the more external elements of your piece of work.





The solutions to these questions are tackled using the graphic designer's **tool kit**.

Broadly speaking, the following **tools** are available to him to solve the aforementioned issues:

Point

Line

Form

Pattern

Texture

Space

Size

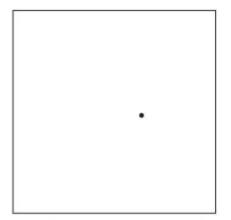
Typography

Color

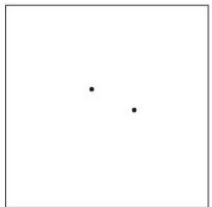
Image

## Point

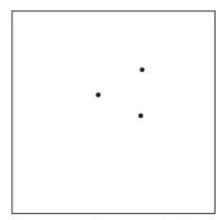
A point is the fundamental particle of graphic design.



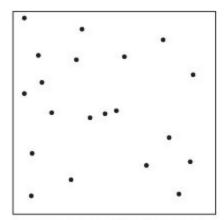
I see lonliness, I see a blemish, a mole or some kind of mark thats spoiling the sanctity of the whiteness



I see some connection between the two, I am reminded of a salt dispenser.



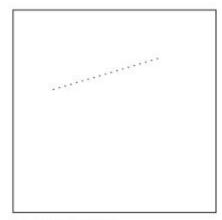
I see a pepper dispenser, and a triangle



I see random dots. I'm reminded of when I had measels.



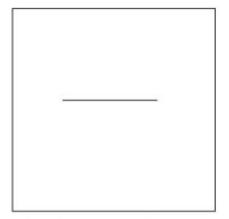
I see the constellation Orion.



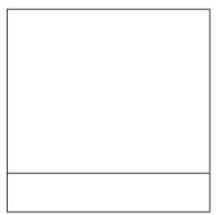
I see a diagonal line

## The Line

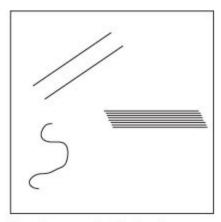
Line is any mark connecting two points.



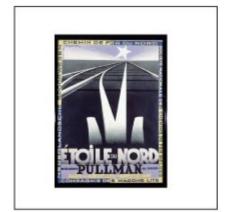
Calm, subtraction, state of rest.



Two parts of the page, one bigger, one smaller.



Lazy line, speed and active line



Acting as a compositional tool leading the eye to a point.



Criss cross lines create an impression of volume and light and shade.



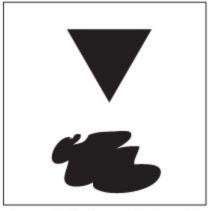
Lines are used to organize information.

# The Shape

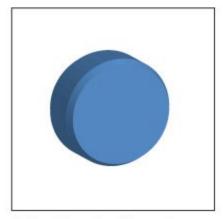
Anything that has a width and a height is a shape.



It is a human tendency to make meaning out of a shape. In this case i recognise the profile of a man in the shape.



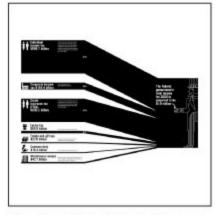
A geometrical shape and an irregular shape.



A three dimensional shape gives us an illusion of depth in the page and gives a shape a tactile quality.



It is impostant to note that the negative space is as important as the positive space.



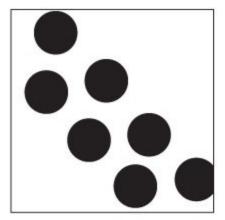
Here shapes have been used to organize information.



Shapes are used in icon design for their immediate cognition.

## Pattern

Our tendency to make meaning an order will find a pattern in things.



Patterns are a way of making sure the user can comprehend the page system logically. For example the user understands that there will be a continuation of the pattern above even beyond the page.



Here pattern has been used to organize information logically.



When a grid is used to lay out a page the underlying network of lines organses the information for the viewer and helps him take in the information in logically



Here the way pagination has been treated forms a pattern.



Branching and tesselations are two major types of patterns, both of which are used in organizing information.



Here a repititive pattern using colour and shape is used in textile design.

#### **Texture**

Texture is the look or feel of a surface. You can add richness and dimension to your layouts with texture. Visual texture creates an illusion of texture on a printed publication or web page.

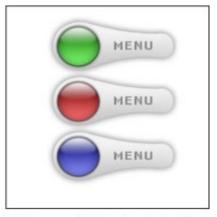
- Texture can create mood and personality
- Provoke emotion



Texture is the illusion of a tactile quality. It is used to give a surface an expression.



In real life the raised surface of the buttons of a remote control are depressed to perform an action.



With new web RIA technologies this is emulated to give a flat surface a tactile quality.



A texture can be used to provoke an emotion.



Texture is used in printmaking and pallete knife work in painting to create interesting surfaces.



Texture is used in collage art and installation art to create new meanings.

## Space

Space is the distance or area between or around things.

Space separates or unifies, highlights, and gives the eye a visual rest.



Space around bodies of text can make a page look lighter and reader friendly.



Here space has been used to create emphasis and structure and segment information. Grouping information using space reduces visual clutter too.



Here space has been used as a means of emphasising the subject of the photograph.

#### emphasis

emphasis

Space between letters can be used to create emphasis because the word is read more slowly.

Similarly space Similarly space between lines between lines makes a piece of makes a piece of heavy text look lighter. Lorem heavy text look ipsum dolor sit lighter. Lorem amet, consectetuer adipiscing elit. ipsum dolor sit Fusce porttitor amet, consectetuer ultrices massa. Nulla quam tortor, adipiscing elit. auctor vel, suscipit eu, pretium et, Fusce porttitor magna. Duis at ultrices massa. diam. Nunc eu

Space can be used to make heavy text look lighter.



Here space has been used as an integral element in the layout of the page.

#### Size

Size is how large or small something is.

Size is very important in making a layout functional, attractive, and organized.

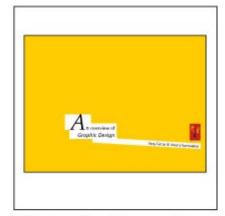
It shows what is most important, attracts attention, and helps to fit the layout together.



Size is important to create emphasis and heirarchy.



Here size has been used to indicate which feature is more important than the other. The different sets of sizes also organize information on the page into categories.



In the first slide of this presentation i had to use a lot of white and black to balance the mindtree logo .The red has a smaller size but a very heavy visual weight in this picture.

## Type

Typography is one of the most important tools for a graphic designer.

Typography can take you back to a different time, set a mood, set a tone of voice, organize pages, create unity between objects etc.



Typography is used to make text legible and clear. Certain typeface are more readable than others. Choice of font, line spacing, line length are some functions to keep in mind when setting large amounts of text.



Type is used to talk to different people differently.



Stylized typography is used for creating distinctive logos. In this case the type has been inspired by roots of trees and work well with the image of the bird.



Type is used to evoke an era and an emotion.



Here type has been used to make organize a large amount of information.



Type is one of the primary elements in corporate identity.

#### Color

Color in layouts can convey moods, create images, attract attention, and identify objects.

When selecting colors for a publication or a web page, think about what you want the color to do and what is appropriate for your purpose.



Colour has the ability to immediately conjure up emotion



Colour is used to highlight important elements such as headlines and subheads.



Provoke emotion.



Colour is one of the most important elements in creating a corporate identity.



Colour can be used to represent ideology.



Knowledge of colour complimentaries and harmonies are used to create composition.

## **Image**

Image is an essential part of graphic design.

Images can be of basically three kinds; Photographs, Illustration and paintings.

Images can be interpreted in many ways and cultural differences should be kept in mind when 'reading' an image.



Photographs can be of various kinds. the one pnes above are of the genre of fashion photography.



Photo journalism, also known as documentary photography.



Fine art photography which treats it purely as an art form.



Product photography



Illustration is a way of abstacting ideas and representing them. Technical drawing is often used in user manuals



And ofcourse painting

# Miscellaneous examples of usage of graphic design



Graphic design is the coming together of type and image to communicate something. It is essential for advertising.



Poster design



Signage and icons



Expressing oneself



Packaging



And Yes, Graphic Design can change the world.

#### COMPOSITION: The use of the PRINCIPLES OF DESIGN

While using the tools we spoke about a designer that keeps in mind some principles of design that aid him in composing his work.

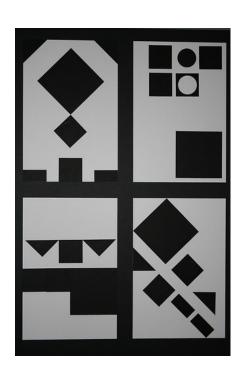
#### These **principles** are:

- Balance
- Rhythm
- Emphasis
- Unity

These principles of design help you to combine the various design elements into a composition.

#### Balance

Balance refers to the distribution of visual weight in art. Visual weight may not be a 50-50 distribution on both sides of the page.



All the quadrants in the picture at left are balanced. Clockwise from left, they are Symmetrically, Asymmetrically, Horizontally and Diagonally balanced.

Each element on a layout has visual weight that is determined by its size, darkness or lightness, and thickness of lines.







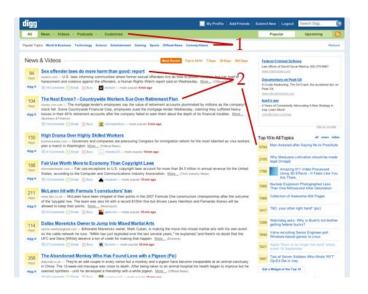
All the images above are balanced.

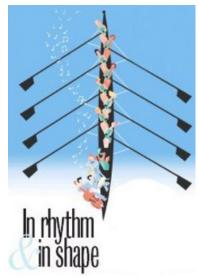
Let us discuss how.

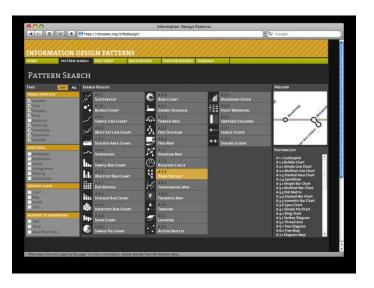
## Rhythm

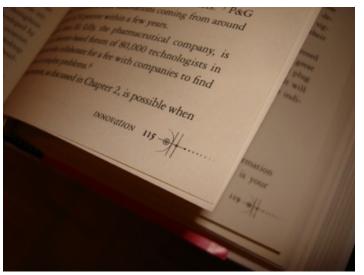
Rhythm is a pattern created by repeating elements on a page in an expected manner.

Repetition (repeating similar elements in a consistent manner) and variation (a change in the form, size, or position of the elements) are the keys to visual rhythm.









### **Emphasis**

Every page needs a focal point.

Emphasis is also known as dominance in graphic design. It is the first thing the eye sees.

Emphasis is used to create a hierarchy of what should be most important on a page.









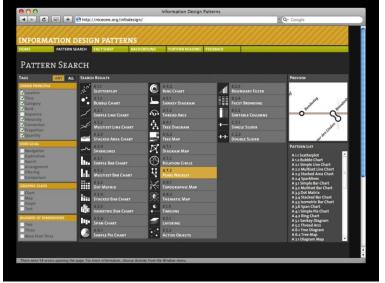
#### Unity

Unity helps all the elements look like they belong together.

Readers need visual cues to let them know the piece is one unit.

One should be consistent with fonts, sizes, styles, headers, footers etc.





#### **GESTALT THEORIES**

The Gestalt or 'whole form' theory sought to define the principles of perception.

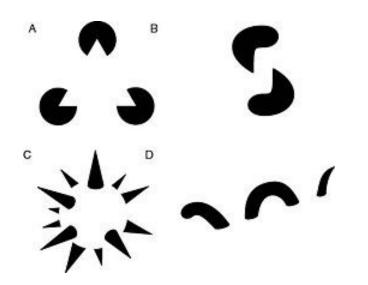
These are innate mental laws that determine how we see images.

- Emergence
- Reification
- Multi-stability
- Invariance
- Closure

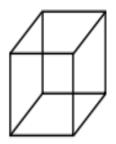
- Similarity
- Proximity
- Symmetry
- Continuity



**Emergence:** The dog emerges from the other spots as a whole and not as individual parts.

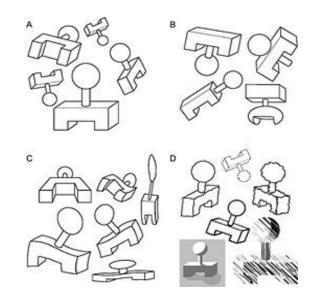


Reification: This is the 'constructive' aspect of perception, i.e. we draw shapes in our mind even though there is nothing actually drawn.

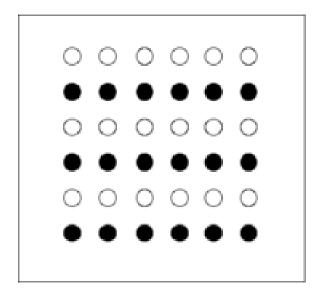




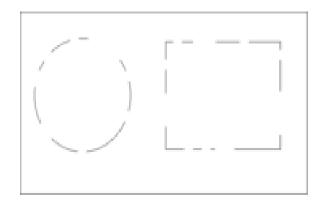
Multi-stability: The tendency for us to see a static image pop back and forth, or for us to see two images in one alternately.



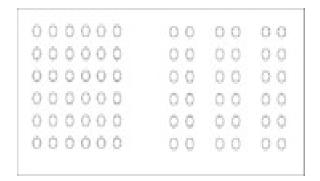
**Invariance:** We recognize simple geometrical objects irrespective of rotation, scale or translation.



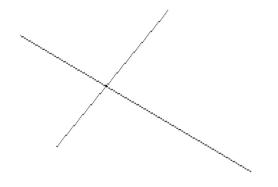
**Similarity:** The mind groups similar elements into collective entities.



Closure: We have a tendency to complete a regular figure.



**Proximity:** The mind groups elements into collective entities depending on their proximity.



Continuity: We will see the lines crossing each other rather than two angles.

#### **GOLDEN SECTION**

The Golden Section is also known as the Golden Mean and the Divine Proportion. It is also known as the law of nature.

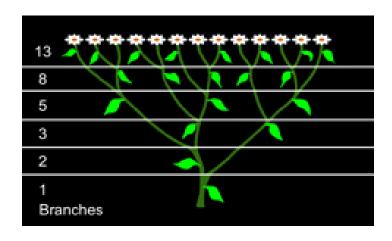
It is the ratio or proportion defined by the number Phi (1.618)

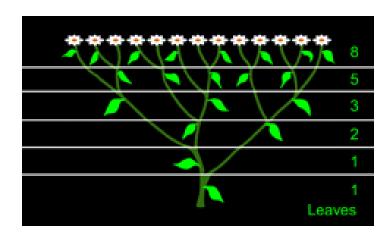


In the picture above A is 1.618 times B and B is 1.618 times C

The **Fibonacci series** of numbers are based on this ratio.

The illustration below shows how the Fibonacci series works in nature.

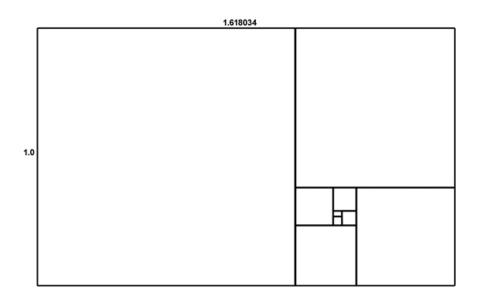




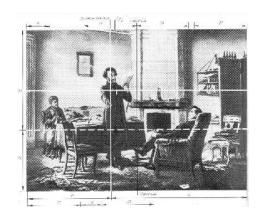
#### What does this mean in art and design?

The rule of thirds is derived from the golden section.

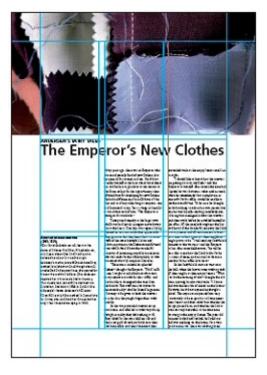
A golden rectangle is a rectangle whose sides have the ratio of 1:.62. Below, the entire figure is a Golden Rectangle. By dividing the large rectangle at the .618 position, we get a square and another Golden rectangle. And so on and so forth.

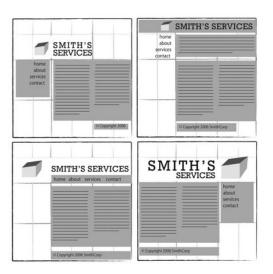


## The rule of thirds in composition



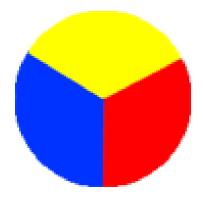






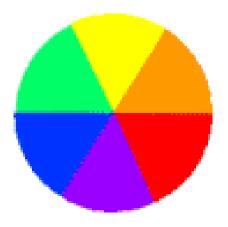
#### **COLOUR THEORY**

In traditional color theory, these are the 3 pigment colors that can not be mixed or formed by any combination of other colors.



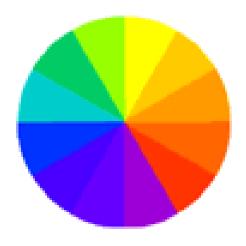
**Red, Yellow and Blue** are called **Primary Colors**. All other colors are derived from these 3 hues.

**Secondary Colors** are colors formed by mixing the primary colors.



**Green, Purple and Orange** are formed by the mixing of the primary colors.

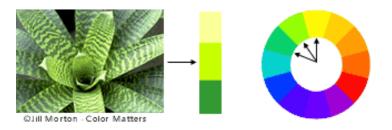
**Tertiary Colors** are colors formed by a primary and a secondary color.



That's why the hue is a two word name, such as blue-green, red-violet, and yellow-orange.

## Why do we need to know this?

Knowledge of Color harmonies and complimentary colors aid us in composition.



Harmonious Colors are colors that sit next to each other on the color wheel.



Complimentary Colors are colors opposite each other on the color wheel.

## Use of color harmonies





# Use of complimentary colors



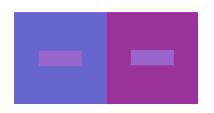


### Color against different colors

One color may look different against different colors.



Red appears more brilliant against a black background and somewhat duller against the white background. In contrast with orange, the red appears lifeless; in contrast with blue-green, it exhibits brilliance. Notice that the red square appears larger on black than on other background colors.



Here the smaller rectangle on the left appears to have a redder tint

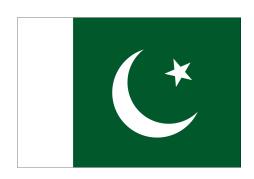
### Color Symbolism

The communicative properties of a color can be defined by two categories:

Natural associations and Psychological (or cultural)



associations.



The color green can stand for both nature and Islam.

#### Color and corporate ID

The psychological aspect of color is the main rationale behind its use in corporate ID.

The other reason is that color is the first thing we perceive in any graphic element.

The Psychology of Color	
Color	Associations
Reds	Energy, Passion, Power, Excitement
Oranges	Happy, Confident, Creative, Adventurous
Yellows	Wisdom, Playful, Satisfying, Optimistic
Greens	Health, Regeneration, Contentment, Harmony
Blues	Honesty, Integrity, Trustworthiness
Violets	Regal, Mystic, Beauty, Inspiration
Browns	Easiness, Passivity
Blacks	Finality, Transitional Color



## Graphic design and Web 2.0

Web 2.0 is a disputed word and no one is really sure what it means.

What do you think Web 2.0 is?

### My definition of Web 2.0

Mostly it describes the new usage of the world wide web and automatically presupposes a look and feel that a web 2.0 site must have.

The characteristics of the new web are collaboration, user generated content, blogging and extensive database management among other things.

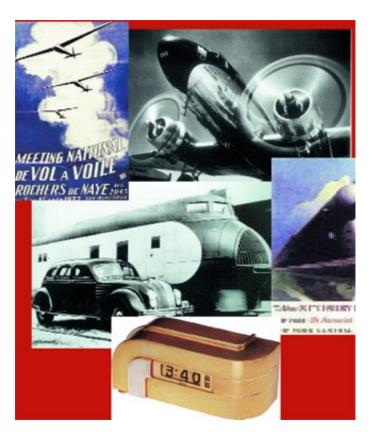
These new uses of the web have been made possible by technological advancements in the means of putting content up on the web.

The reason for the **presupposed 'look and feel' (aesthetic)** is what I would like to discuss with you.

#### Statement:

Science and Technology has always defined aesthetic.

When streamlining and aero dynamism was introduced to planes and motor-vehicles, it was automatically translated to fridges, furniture, clocks and fans too.











The Bauhaus aluminum stool with a perforated seat that was originally made to make the stool lighter to carry, inspired a 'modern' aesthetic that is even used today.



When diagonal typesetting was made possible with the advent of new typesetting technology, (previously type could only be set horizontally) it became one of the fundamental qualities of an art movement called futurism.





#### Question:

So if technology defines aesthetic, what does the new web 2.0 technology mean for design on the web?

Logically speaking, the following can be deduced:

Screen sizes have increased and therefore white space. Layouts on the web can breathe better.

Because of more space large type has also become popular.

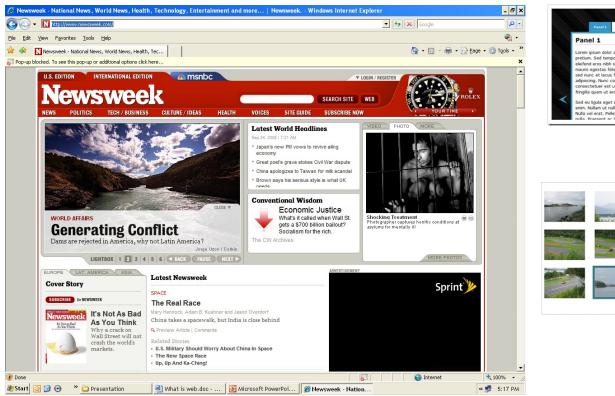








Ajax and Flash etc enable multiple content in the same space so visual clutter is greatly reduced. Widgets are very popular.







Sans serif fonts, originally associated with modernity, and greatly used in web design because of better rendition on low screen resolutions, are slowly giving way to more and more serif faces because screen displays have become much better.

For example Georgia and Cambria are very popular now in web design.

The New York times, Boston Globe and some of the best designed sites in the world use Georgia as one of their major fonts because of its readability and character.

Also, now newer web technologies don't limit you to the default web fonts.

#### The New York Times and the Boston Globe

## Boston Blobe

ING NEWS UPDATES Local | Business | Politics | Health

#### PAGE ONE

#### A tough sell on Capitol Hill

Facing angry, testy, and skeptical legislators from both parties, the Bush administration's top economic leaders warned yesterday that the nation's economy could face a widespread meltdown unless Congress quickly passes the biggest financial rescue plan in US history. (By Michael Kranish, Boston Globe)

#### Hopefuls' grand plans may be delayed

Campaigns are made for promises, and the presidential candidates have made many to voters in the past 18 months. But the crisis in the nation's financial system and the prospect of chronic, large federal budget deficits will probably delay many of their most ambitious proposals, (By Brian C. Mooney, Boston Globe)

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By WILLIAM GLABERSON Salim Ahmed Hamdan, the first detainee convicted after a war crimes trial in Guantánamo Bay, Cuba, could complete his punishment this year. · Times Topics: Salim Ahmed

#### Gates Endorses \$20 Billion Bid to Aid Afghans

Hamdan | Guantánamo Bay

By THOM SHANKER A plan would increase the Afghan army's size and



With Hired Gun, Jets Embark on a New Era

Woody Johnson, left, the Jets' owner, introduced Brett Favre with General Manager Mike Tannenbaum, ending a stunningly swift courtship with a still fragile union.

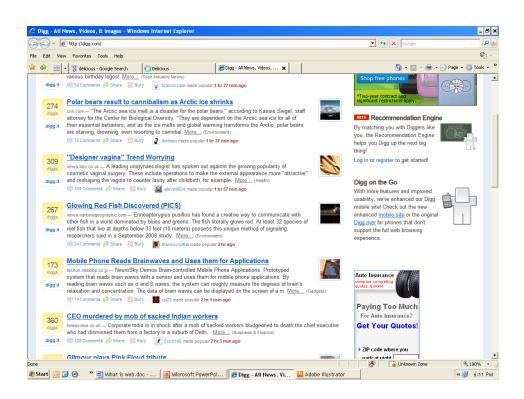
Because of the search engine mechanism, text to graphic ratios have increased.

Plus with current web use there is lots of surfer generated content.

Due to this type hierarchy as a design element is extremely important in web pages.

Designers have been getting very creative with the way they use type.

## Sites like Digg, Delicious and Technorati have to organize large amounts of text creatively.





But what is the most glaring, in your face characteristic of "Web 2.0"?

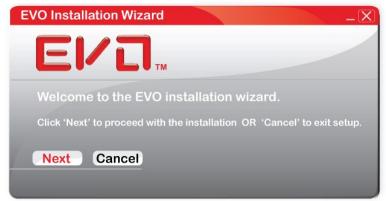
Large Type, Glassy surfaces, Beveled edges, gradients, badges, and reflections and more reflections.

What has inspired this? We cant do anything radically new in Photoshop now that we couldn't do in the past.

The emphasis is on some sort of shiny *material*. What material could that be?













(Samples only - Actual size - 700px wide)



**Badges and Gradients** 





# Diagonal Lines and Beveled edges





Sheen and soft outer glow



### The Culprit

Apple

Apple's products *physically look* glassy and reflective.

They are made of *materials* that are beautiful and shiny and glassy and reflective.

And their contours are beveled.













Millions of songs. Thousands of movies. Hundreds of games.

Their old logo was changed to this glassy one because of their product.





*Hence*, and hence, being the operative word, when they were designing an OS for the Mac it *necessarily* had to be shiny/glassy etc to *compliment the product*.

This is what we now call the Web 2.0 aesthetic. It is more of a trend like pre-faded jeans.

The Apple look has been used in sites, operating systems and applications that have nothing to do with being glossy at all.

In other words the reason has been divorced from the design.

Add to this the fact that since a million new companies and products are more visible online than anywhere else, and they don't have to worry about printing costs of their logos, the mantra has become 'make it reflect'.

It is okay to follow a trend but it is important to understand **why** you are using it and use it with **discretion**.

Tweaking and modifying popular design aesthetics is the only way to avoid cliché.

It is the only way to retain the originality for your site.

You could argue that if technology does indeed shape design, and Apple's products have shaped our new aesthetic....

#### then what is wrong with it?

After all that's what happened with Streamlining and the Bauhaus stool and the Futurists.

This too is a aesthetic trend and will soon give way to something else. Why should we be any different in our attitude to following trends?

The scary thing is the new culture of amateur publishing.

In the past, it was only professional painters, designers etc who had the means of putting content out there.

Now any joker with Photoshop is a designer, and what's worse, he can flex his design muscle by clicking submit.

This largely explains the irresponsible use of the Apple look on the web today. There are beautiful sites that don't use this Apple look but are still modern and smart and contemporary looking.

These are the truly designer websites.

The true web 2.0 websites.

The sites in the next two slides are designed intelligently, are modern and contemporary, and *are not typically 'Web 2.0'* 













However, given that the apple look it is here to stay for some time we need to ask whether it helps or impedes the surfer/user in carrying out his tasks on the web.

### Some thoughts I had on the Web 2.0 look

I think the 3dimensional quality of the buttons are useful because they emulate real life buttons and give **aural and visual feedback on clicking on them.** Tactile quality is achieved.

The reflections create a z dimension on the page that makes pictures, especially of products, sit, better. The page is no longer 2d as things are emerging from front to back, buttons are depressible etc.

The way 2d animation is being replaced with big 3d animated feature films in mainstream animation can be used as an analogy to what is happening to the web.