

Lesson 1: Imaging

What makes a good and effective website?

A good website must know its target audience, determine its needs, and communicate effectively using the basic principles of graphics and layout.

Web design matters in every user, whether they can decide to stay or just leave.

Usability is important for the users as it satisfies their experience on the website, but a good design will drag the audience's attention to stay on the page.

Always remember that first impressions last and web design has an impact on the users on how they perceive the brand or message.

Graphic design is an **artistic way of communicating ideas and messages through visual expressions** using texts, images, and symbols.

Graphic design is the craft of planning and creating visual content to communicate ideas and messages. Graphic design is everywhere you look in the digital age — from billboards to cereal boxes to mobile apps. By incorporating different elements and principles, these designs can influence our perceptions and emotions.

Graphic design is also known as communication design, and Graphic Designers are essentially visual communicators. They bring visual concepts to life, most commonly through graphic design software, and inform or engage consumers through text, graphics, and images.

Graphic design is one way that companies connect with consumers. Design can be used to promote and sell products, to convey a message, or to develop a brand identity. Though some graphic design has a commercial purpose, Graphic Designers combine art and business, so the creative process is informed in part by business goals.

Graphic Design vs. Layout

Design is a plan of creating an idea through a combination of texts, images, and other elements that are placed together artistically. Whereas, the **layout** is a term used as the process of organizing and arranging these elements in a design as you plot it in a paper.

Elements of Graphics Design

1. Lines are present in nearly every design, whether they are straight, curved, thin, thick, dashed, long, or short. Lines connect any two points. They are useful for dividing space as well as directing the viewer's attention in a specific direction.

There are various types of **Lines** such as **Horizontal, Vertical, Diagonal, Broken, Zigzag, Wavy, Curved, and Spiral.**

2. Color is perhaps the most important and obvious element of a design. It can create an impact right away, and it is noticed by everyone, even those without a design background. Colors can be used in backgrounds or within other elements like lines, shapes, or typography. Colors create emotions and moods. For example, red can represent passion and green can represent nature.

3. Shape, also known as form, is the combination of lines. Shapes can be circles, squares, rectangles, triangles, or other abstract forms. Most designs include at least one shape. Similar to color, shapes have different associations. A circle may be used to represent unity, whereas a square could represent structure. The color, style, background, and texture of a shape can all influence the viewer's perception. The three types of shape are **Organic, Geometric, and Abstract.**

4. Space is the area that surrounds or divides elements in a design. We often think of space as "white space" in design, but it doesn't have to be white. Space also refers to negative space or the space in between shapes. White or negative space is crucial in design because it enhances readability for the human eye. Good designs will utilize space to give other elements room to breathe.

5. Textures are becoming more commonly used, replacing single-color backgrounds. Textures can include paper, stone, concrete, brick, and fabric. They may be subtle or obvious and be used sparingly or liberally. Textures can be helpful to create a three-dimensional appearance. There are various types of texture such as **Bumpy, Soft, Furry, Scratchy, Rough, and Fuzzy.**

6. Value describes the lightness or darkness of a color. This element is important in visual design because the juxtaposition between light and dark values creates contrast.

7. Size is how small or large something is: a small shirt vs. an extra large shirt, for example. It defines the importance, creates visual interest in a design (via contrasting sizes), attracts attention, and more.

8. Typography, a cornerstone of graphic design, encompasses the art and arrangement of fonts to convey a visual and textual message. The choice of typefaces, font sizes, and spacing profoundly impacts the design's readability, tone, and overall aesthetic.

Serif – Thick and Thin Strokes.

Sans Serif – Strokes that have even Width

Basic Principles of Graphics Design

BALANCE

It refers to the proper arrangement of the elements, which gives a visual weight for the design. **Symmetrical balance** is where the elements are **equally distributed on both sides** of your design, technically a mirror-based design. **Asymmetrical balance** is a free layout where the **elements can be placed in any order** or the opposite of symmetrical.

EMPHASIS

It refers to something that **needs to stand-out** or emphasize. This means the most important information the design is meant to convey. When working on emphasis, you can change the color, size, or even the element itself to lead the eye to the focal interest.

REPETITION, RHYTHM, and PATTERN

The use of repetitive elements such as lines, shapes, forms, textures, space, colors, font, style, and the like to create texture, movement, continuity, and consistency of the design. **Repetition is a great way to reinforce an idea.** It's also a **great way to unify a design** that brings together a lot of different elements. There are **five basic types of visual rhythm** that designers can create: **random, regular, alternating, flowing, and progressive.** **Patterns are nothing more than a repetition of multiple design elements working together.** Wallpaper patterns are the most ubiquitous example of patterns that virtually everyone is familiar with.

SCALE and PROPORTION

Scale refers to the size of an object (a whole) in relationship to another object (another whole). In art the size relationship between an object and the human body is significant. In experiencing the scale of an artwork we tend to compare its size to the size of our own bodies. Proportion refers to the relative size of parts of a whole (elements within an object). We often think of proportions in terms of size relationships within the human body.

ALIGNMENT

It refers to the proper placement of an element to your design, just like invisibly placing or aligning your texts or images diagonally, vertically, and horizontally. The standard texts or paragraph alignment we apply are center, right, left, and justified.

HIERARCHY

*It refers to the **proper arrangement of the details** such as text, characters, numbers, and symbols.*

CONTRAST

*It refers to the **use of different or opposite elements** such as sizes (large or small), shapes (geometric or organic), spaces (negative or positive), form (real or abstract), colors (monochromatic, complementary, triadic, tetradic), texture (smooth or rough), and values (light or dark). You must consider and limit the use of different elements, color, style, and typography to avoid cluttered design. When creating contrast in color and text, it is advised to choose a color from the background to create consistency of your design. Always remember that the details must be readable by having a dark-light value of either text and background or vice-versa.*

UNITY and HARMONY

*It refers to the **relationship of the elements or the contents when you place them together**. The elements of the design must work together and agree to its meaning, theme, feeling, or mood.*

Lesson 2: Infographics

What is Infographics?

*An image containing graphics and text including statistics about a certain subject. It is done in a **creative way** to let people easily understand the message or the story being delivered.*

2 Types of Infographics

One – level Deep refers to a basic infographic that contains visual and content may include one or two sub-parts.

Two – level Deep is a more advanced infographic that provides more details including statistics and digs deeper into the topic.

3 Major Parts of an Infographic

The visual refers to the colors, graphics, and icons used in designing the infographic.

The Content includes the texts, statistics, time frames and references.

The Knowledge refers to the facts and conclusions to convey the overall message or story.

Principles of Great Infographic Design:

1.Communicate one Central Idea

2.Communicate the Data Clearly

3.Create Layers

4.Make it easy to Navigate

5.Keep it Beautiful

Bar graphs – These are primarily used in comparing sets of data. They visualize the difference between values in a table and show rate of change over time.

Line graphs – These are similar with bar graphs in terms of use, with a difference that line graphs are more suitable in showing trends.

Pie Chart - These are circular statistical graphical representation of proportion or percentage.

Forest graphs – These graphs are used to visually represent values within a group and compare them to other groups.

Radial graphs – These are similar to a forest graph in many aspects but are presented using a circle.

Lesson 3: Image Manipulation

What is Image Manipulation?

It is an art that involves enhancing or modifying an image using different methods and techniques to achieve desired result.

Photo editing and designing software allow you to manipulate or edit images. In order to perform image manipulation, you need to have basic knowledge of image editing operations such as cutting, cropping, replacing and more.

For this, you need an image editing software for image manipulation practices. The followings are some examples of image editing software:

- Adobe Photoshop
- Gimp
- Corel Draw
- Pixlr Editor
- PAINT.NET
- InPixio

Online File Formats for Images and Text

Image file format refer to how data associated to the image will be stored. It can be compressed to decrease file size of the image. There are two different compression you can choose when enhancing your images: lossy and lossless compression. **Lossy compression** reduces file size by removing redundant information means that some data from the image file is lost. While **Lossless compression** retains values and manages to lower file size.

Common image file formats

Name	Extension	Color	Compression	Common Uses
Joint Photographic Experts Group	.jpg, .jpeg	24- bit	Lossy	Used for Online photos and / or artwork
Graphic Interchange Format	.gif	8 – bit	Lossless	Animated graphics like banner ads, email images and social media memes
Portable Network Graphics	.png	Up to 24-bit	Lossless	High-quality transparent web graphics. Considered as best image file type for web graphics.
Tagged Image File Format	.tif, .tiff	24-bit	lossless	Primarily used in photography and desktop publishing.

Image resolution refers to the number of pixels in an image or the detail an image holds. It is identified by the height and the width of the image. A **pixel** is just one unit of the whole digital image it is the smallest unit of an image. The higher the resolution, means that there more pixels per inch (PPI), resulting in more pixel information and creating a high-quality, crisp image.



Images with
Low pixels



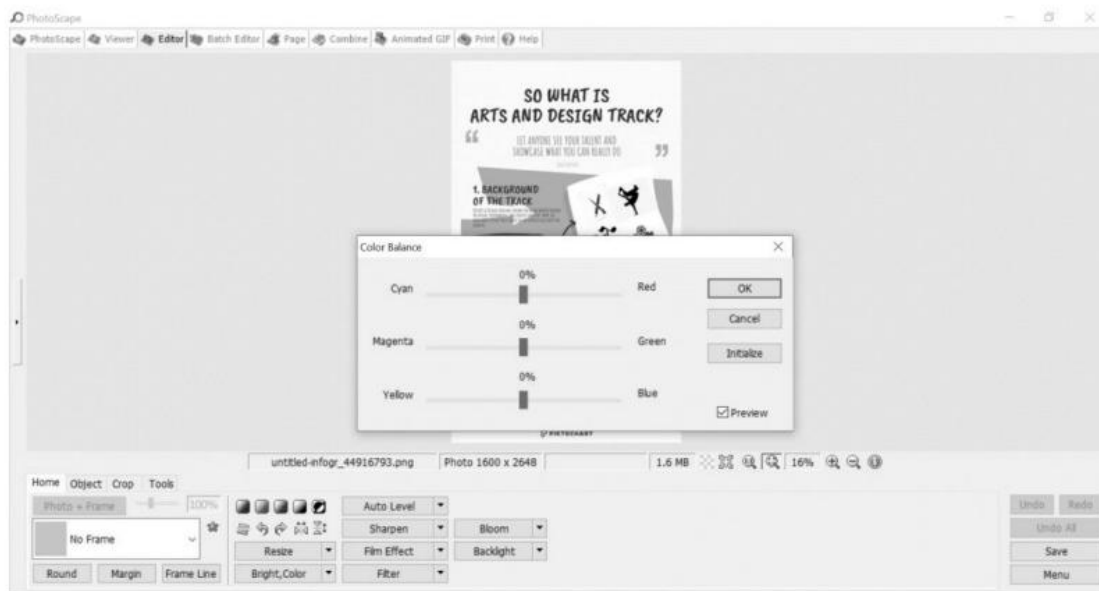
Images with
High pixels

Raster Graphics	Vector Graphics
Made up of pixels or dots	Made up of lines and curves
Resolution dependent	Resolution independent
Image quality deteriorates	Image quality remains constant
Scaling results in loss of data	Scaling does not affect the quality
Limited to rectangular shapes	Can create any shape
Larger file size for high-res	Smaller file size for high-res
Suitable for photographs and images	Suitable for logos and designs
Editing is often difficult	Editing is easy and flexible
Examples: JPEG, PNG	Examples: SVG, AI

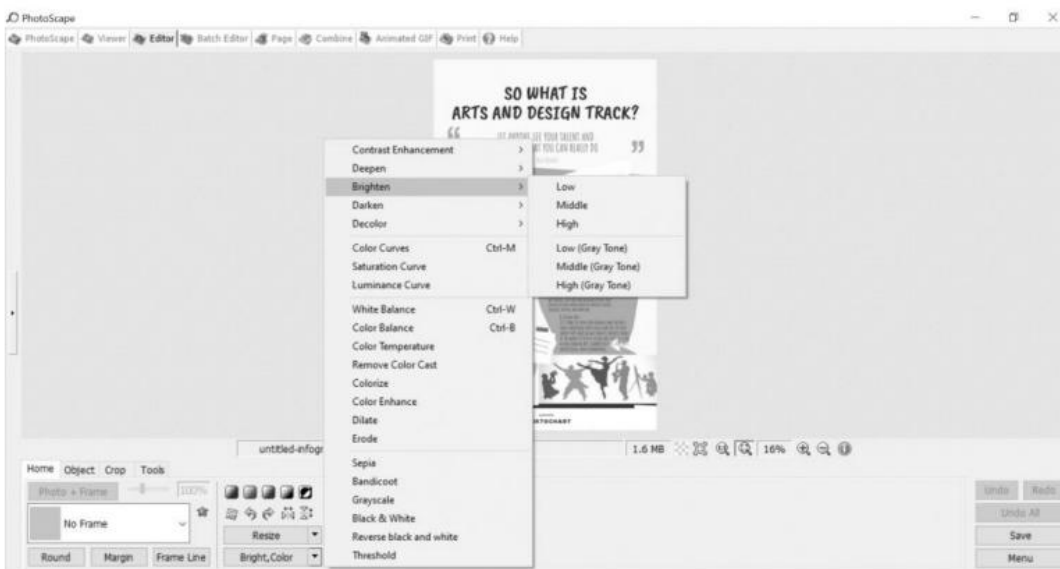
1. **Cropping** – It is a process of removing unwanted parts of the image, focusing only on the subject. When cropping, one must always follow the Rule of Thirds to organize the image composition.



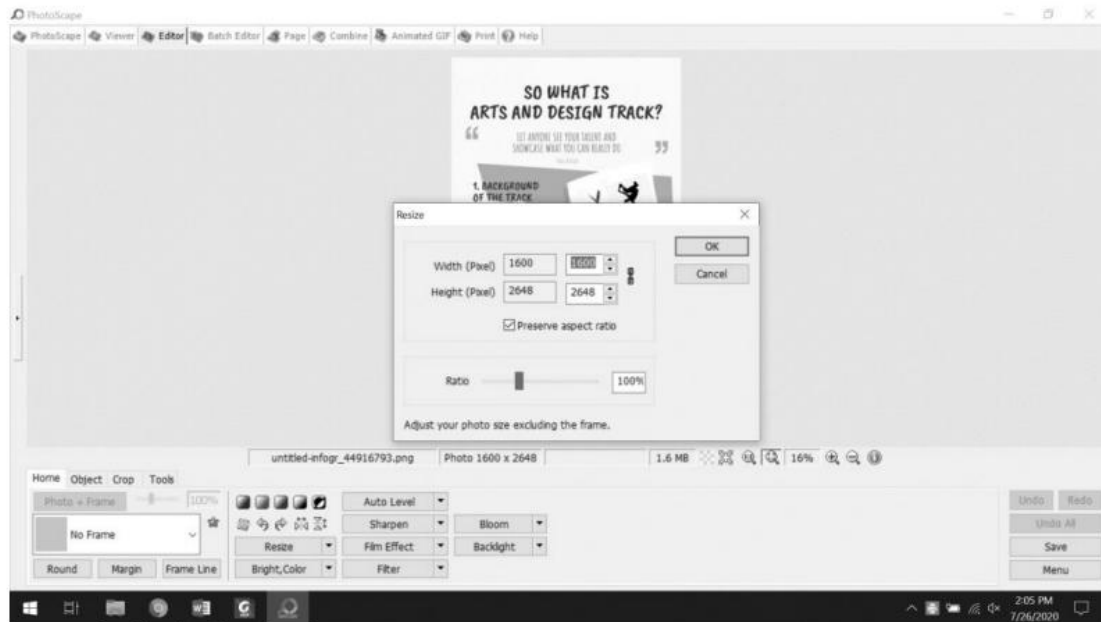
2. **Color Balance** – In any image manipulating program, this command will allow you to make changes in the mixture of colors in an image.



3. **Adjusting Brightness and Contrast** – This command is the most basic technique when adjusting the image tone (highlights, shadows, and midtones).



4. **Compression and Resizing** – Compressing and Resizing an image is an important aspect in image manipulation. Images to be uploaded on the web must be of the standard resolution of 72 dpi (dots per inch) to maintain its image file size of 30-50 KB. If the image is for printing, set the maximum resolution to 300 dpi and set its physical printing size in inches.



5. **Color Blending** – Use the different special effects buttons available in the different image editing software. You can combine colors and commands that will give you a more dynamic image result.

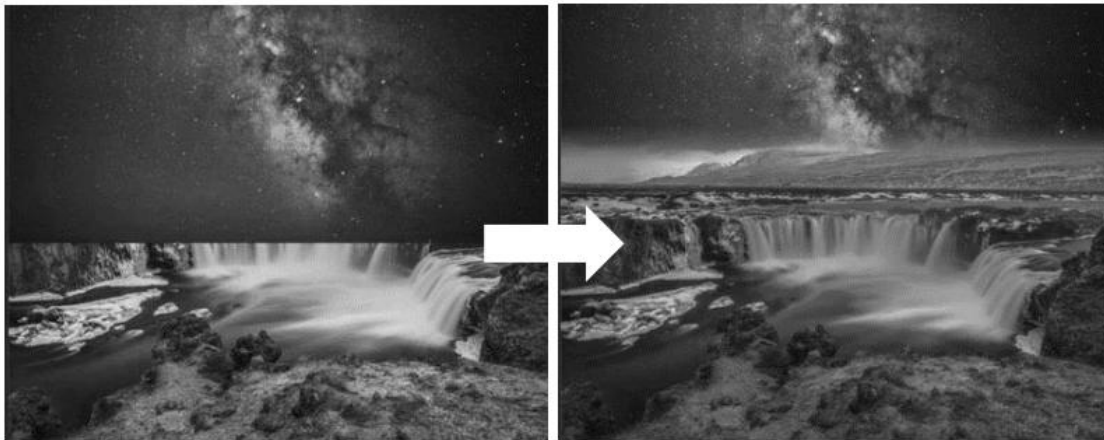


Image Source: <https://photoshopcafe.com/combine-blend-photos-photoshop-night-sky/>

6. **Combining Multiple Images** – Compositions must be planned and conceptualized first so that you will be able to render the best image and message possible.



Image Source: <https://www.themoviedb.org/tv/77743-encantadia>






Combining Text, Graphics, and Images

Combining text, graphics, and images in your design will make your message clearer.

- **Transparent shapes**
 - Add simple opacity to your shape to see clearly the text you want to emphasize. It adds an elegant and focal point to your design
- **Fonts and Shapes**
 - Used the right font size (not too small and not too big) and font type in your design and combined it with a nice shapes.
- **Text and background**
 - Organized your design. Make used of the different text alignment on an image(s).
- **Clean and clear background**
 - Less is more. Focus on what matters. Use a clean and clear background for the message to be readable.

Image Hosting Sites

Images also can be shared online through different web hosting sites that are free. You just need to create a free account, and you will be able to post, organize, and share your photos. The following is a list of different hosting sites you can try.

	1. Imgur – It is a free image hosting site wherein you can upload images from your computer. You can also edit your images before posting it online.
	2. Flickr – It is an image social networking site. You can save and manage your photos for it offers a 1 TB storage capacity in your account.
	3. Photobucket – It has almost similar features with Flickr as you can upload and share your images over the internet through your account.
	4. SlickPic – It is an online image-hosting service that allows you to upload and store an unlimited number of photos online. You can create as many albums, and it also offers professional editing of images.
	5. Zenfolio – It is an online image-hosting site that does not only allow you to upload image but also lets you create an online image website for your images.

Lesson 4: Online Creation Tools, Platforms, and Applications for ICT Content Development

ONLINE CREATION TOOLS AND APPLICATIONS

- *typically is designed for a specific use case*
- *usually understood to be a larger, more complex piece of software*
- *computer programs that utilize web browsers and web technology to perform tasks over the internet*

EXISTING ONLINE CREATION TOOLS AND APPLICATIONS FOR SPECIFIC PURPOSES

1. Audio and Visual Content Creation Tools and Application

A. Audio: These tools and applications allow users to create, edit, trim, remix, and publish kinds of music and sounds

B. Infographics: These tools and applications give users the chance to create a creative and stunning infographic.

C. Video: These tools and applications allow users to edit and create videos online.

D. Presentations: These tools and applications let the users utilize images, videos, and graphics on their presentations to get into the minds of their target audience.

E. Memes: The Internet is full of colorful images and videos because audiences love them and sharing them. Memes get copied and spread rapidly. These applications and tools make meme creation easier

2. Online Offices

These applications and tools are word processors, spreadsheets, slides, and survey forms that work in cyberspace.

3. Content Management System (CMS)

> an application that allows the user to publish, edit, manipulate, organize, and delete web content. Most webpage creation platforms are using CMS to develop ICT content for a specific purpose.

4. ONLINE PLATFORMS

> combine all tools into one place and system for efficient processes and faster accomplishment of different tasks

> allow users to develop ICT content to connect, communicate, and collaborate with other users in the online world.

> can also be defined as digital services that enable collaboration between two or more different but interdependent groups of users who interact through the internet.

EXISTING ONLINE PLATFORMS

1.Presentation/ Visualization These are online platforms that let you showcase and share presentations, infographics, and videos with other people. Examples are Prezi, Zoho, and Slide Shares

2.Cloud Computing This type of platform allows you to upload, download, organize, and store files on the online storage, which is called cloud instead of using offline storage like a computer desktop. Here, users can share and even collaborate files with other users. Examples are Google Drive, Dropbox, and OneDrive

3.Social Media These are interactive online technologies that enable the creation or sharing of information, ideas, career interests, and other forms of expression through virtual communities and networks. Examples are Facebook, Twitter, and Instagram.

4.Mapping This online platform provides detailed information about geographical regions and sites around the world. It allows the embedding of maps into proprietary sites. Examples include Google Maps, Bing Maps, and Wikimapia.

5.File Management This online platform allows you to convert and manage files like images, videos, documents, audio, and more to other formats without downloading a software tool. Examples include Zamzar, Word2pdf, and CloudConvert.

6.Web Page Creation It is an online platform that lets you build a web page that includes colors, texts, images, and often contains links to media such as video and audio. Examples include WordPress, Wix, and Weebly.

Lesson 5: Web Design

What is Web Design?

the process of planning and creating websites, focusing on the visual aspects and user experience, including layout, colors, typography, and imagery, to ensure a functional and appealing online presence.

Elements of Web Design

ELEMENT #1: NAVIGATION

- The website design should be easy to navigate
- The viewer should always know exactly where they are on the website and have easy access to where they would like to be.
- Menu items should easily accessible from any page.



ELEMENT #2: VISUAL DESIGN

- Scrolling text, animation, and flash intros should be used sparingly in your web design and only to emphasize a point for maximum effect.
- Let them know that your is trustworthy and professional.
- Your website has about 1/10th of a second to impress your visitor.



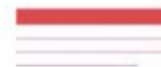
5 Visual-Design Principles in UX

Visual-design principles inform us how design elements go together to create well-rounded and thoughtful visuals. Graphics that take advantage of the principles of good visual design can drive engagement and increase usability.

SCALE
The principle of scale refers to using relative size to signal importance and rank in a composition.



VISUAL HIERARCHY
The principle of visual hierarchy refers to guiding the eye on the page so that it attends to design elements in the order of their importance.



BALANCE
Balance occurs when there is an equally distributed amount of visual signal on both sides of an imaginary axis.



CONTRAST
The principle of contrast refers to the juxtaposition of visually dissimilar elements in order to convey the fact that these elements are different.



GESTALT PRINCIPLES
Gestalt principles capture our tendency to perceive the whole as opposed to the individual elements.



WWW.NN/g

ELEMENT #3: CONTENT

- This is the backbone of your website.
- Your website text should be informative, easy to read, and concise.
- It is the reason most visitors are seeking from your website.



ELEMENT #4: WEB FRIENDLY

- No matter how informative, beautiful, and easy to use your website design is, it's useless unless it's web-friendly.
- It is important that your web designers know the keys to making your website work on all the major browsers, and that they utilize meta tags, alt tags, are fully versed in SEO (Search Engine Optimization).
- Many factors effect your search engine placement and visual appearance of your site, so make sure your web designers know their stuff.



ELEMENT #5: COLOR SCHEME

- Your color palette and fonts will directly inform your visitors' opinions of your site and are what most novice designers start with.
- The groundwork you've done so far will set you up for greater success than Roy G. Biv alone.
- As for choosing a color scheme, paying attention to your brand or industry perspectives — along with your target audience demographics — will make this a somewhat painless process.
- Always be looking for ways to narrow your scope from the roughly 7 million discernable hues the eye can detect.



ELEMENT #6: TYPOGRAPHY

- The same industry and demographics principles can generally be said for the typography, or fonts, you choose to communicate your message.
- More formal roles, like those lawyers and accountants, will likely want to stick with distinguished serif fonts (which have the extra bits hanging off at the end of letters), while we envision the photographer would use a very light and airy sans serif (no extra bits) typeface.
- Your text should be easily readable, which generally means body copy should be at least 16 pixels. Using a complementary font is ideal for headings or accents, but don't go beyond three typefaces or unnecessary sizing adjustments.



ELEMENT #7: TURNAROUND TIME

- The number one complaint of website design customers is the time it takes to get the site up and running.
- Unfortunately, a firm that takes unusually long to complete your website is par for the course.
- The longer it takes to complete the website, the more business - and value - you lose.
- If you want a great website with a very quick turnaround, its going to cost you significantly more than if you want a great website and are willing to wait for it.



Remember **WYSIWYG**

- *Web users want control over the online material -- they want to seamlessly obtain the information they need.*
- *Don't force visitors down a specific path -- give them control.*

WYSIWYG (What You See Is What You Get) WEBSITE BUILDERS

				
WIX <ul style="list-style-type: none">* Easy drag-and-drop interface* Limitless customization options	SQUARESPACE <ul style="list-style-type: none">* Easy to use platform* Beautiful design for sites	WEEBLY <ul style="list-style-type: none">* Easy to use dashboard* Professional - looking templates	WORDPRESS <ul style="list-style-type: none">* Near- infinite customizability* thousands of available plugins and themes	SHOPIFY <ul style="list-style-type: none">* Easy-to-use product management* Inventory management and POS integration

Typical Website Evolution

Generation 1 -- replaces paper information

Generation 2 -- has flashy elements

Generation 3 -- is bleeding edge, causing content to suffer

Generation 4 -- content and technology are integrated

General Methods for Design

- “Ad-hoc” Process (“seat of the pants”)
 - Hastily put together
 - Created on the fly

“We need a web site TODAY”

- *A methodical, well-thought process includes:*
 - Planning
 - Quality-assurance testing

Pitfalls of *Ad-hoc Process*

- Many “under construction” banners
- Old content
- Dated design and techniques
- Errors (broken links, broken scripts)
- Convoluted logic results in a confusing site
- “Spaghetti code” in the CSS that only the original designer understands
- Difficult to update and maintain

Benefits of *Ad-hoc Process*

It's useable for:

- Sites that will have a short lifespan
- Very small web sites
- Sites designed for a very specific purpose (a single survey, a single class, a specific event, etc.)

