**1.4 WEB CONTENT**

**Web content** is the textual, visual or aural content that is encountered as part of the user experience on websites. It may include, among other things: text, images, sounds, videos and animations.

***Beginnings of web content***

While the Internet began with a U.S. Government research project in the late 1950s, the web in its present form did not appear on the Internet until after Tim Berners-Lee and his colleagues at the European laboratory (CERN) proposed the concept of linking documents with hypertext. But it was not until Mosaic, the forerunner of the famous Netscape Navigator, appeared that the Internet become more than a file serving system. The use of hypertext, hyperlinks and a page-based model of sharing information, introduced with Mosaic and later Netscape, helped to define web content, and the formation of websites.

Largely, today we categorize websites as being a particular type of website according to the content a website contains.

***The page concept***

Web content is dominated by the "page" concept. Having its beginnings in academic settings, and in a setting dominated by type-written pages, the idea of the web was to link directly from one academic paper to another academic paper. This was a completely revolutionary idea in the late 1980s and early 1990s when the best a link could be made was to cite a reference in the midst of a type written paper and name that reference either at the bottom of the page or on the last page of the academic paper. When it was possible for any person to write and own a Mosaic page, the concept of a "home page" blurred the idea of a page. It was possible for anyone to own a "Web page" or a "homepage" which in many cases the website contained many physical pages in spite of being called "a page". People often cited their "home page" to provide credentials, links to anything that a person supported, or any other individual content a person wanted to publish. Even though "the web" may be the resource we commonly use to "get to" particular locations online, many different protocols are invoked to access embedded information. When we are given an address, such as http://www.youtube.com, we expect to see a range of web pages, but in each page we have embedded tools to watch "video clips".

***HTML web content***

Even though we may embed various protocols within web pages, the "web page" composed of "html" (or some variation) content is still the dominant way whereby we share content. And while there are many web pages with localized proprietary structure (most usually, business websites), many millions of websites abound that are structured according to a common core idea.

A **blog** (a blend of the term "**web log**" is a type of website or part of a website. Blogs are usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video. Entries are commonly displayed in reverse-chronological order. "Blog" can also be used as a verb, meaning *to maintain or add content to a blog*. Most blogs are interactive, allowing visitors to leave comments and even message each other via widgets on the blogs and it is this interactivity that distinguishes them from other static websites.

Many blogs provide commentary or news on a particular subject; others function as more personal online diaries. A typical blog combines text, images, and links to other blogs, Web pages, and other media related to its topic. The ability of readers to leave comments in an interactive format is an important part of many blogs. Most blogs are primarily textual, although some focus on art (Art blog), photographs (photo blog), videos (Video blogging), music (MP3 blog), and audio (podcasting). Microblogging is another type of blogging, featuring very short posts.

A **web search engine** is designed to search for information on the World Wide Web. The search results are generally presented in a list of results and are often called *hits*. The information may consist of web pages, images, information and other types of files. Some search engines also mine data available in databases or open directories. Unlike Web directories, which are maintained by human editors, search engines operate algorithmically or are a mixture of algorithmic and human input.

An **Internet forum**, or **message board**, is an online discussion site where people can hold conversations in the form of posted messages. They differ from chat room sin that messages are not shown in real-time, to see new messages the forum page must be reloaded. Also, depending on the access level of a user and/or the forum set-up, a posted message might need to be approved by a moderator before it becomes visible. Forums have their own language; e.g. a single conversation is called a 'thread'. A forum is hierarchical or tree-like in structure: forum - sub forum - topic - thread - reply. Depending on the forum set-up, users can be anonymous or have to register with the forum and then subsequently login in order to post messages. Usually you do not have to login to read existing messages.

**Electronic commerce**, commonly known as **e-commerce** or **ecommerce**, or e-business consists of the buying and selling of products or services over electronic systems such as the Internet and other computer networks. The amount of trade conducted electronically has grown extraordinarily with widespread Internet usage. The use of commerce is conducted in this way, spurring and drawing on innovations in electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. Modern electronic commerce typically uses the World Wide Web at least at some point in the transaction's lifecycle, although it can encompass a wider range of technologies such as e-mail as well.

**1.5 STATIC AND DYNAMIC WEB CONTENT**

**Types of Website Content - Static and Dynamic**

**Static Web Site**

**Static web page (sometimes called a flat page) is a web page that is delivered to the user exactly as stored, in contrast to dynamic web pages which are generated by a web application.**

Consequently a static web page displays the same information for all users, from all contexts, subject to modern capabilities of a web server to negotiate content-type or language of the document where such versions are available and the server is configured to do so. Static web pages are often HTML documents stored as files in the file system and made available by the web server over HTTP. However, loose interpretations of the term could include web pages stored in a database, and could even include pages formatted using a template and served through an application server, as long as the page served is unchanging and presented essentially as stored.

***Advantages and disadvantages***

**Advantages**

* No programming skills are required to create a static page.
* Inherently publicly cacheable (i.e. a cached copy can be shown to anyone).
* No particular hosting requirements are necessary.
* Can be viewed directly by a web browser without needing a web server or application server, for example directly from a CDROM or USB Drive.

**Disadvantages**

* Any personalization or interactivity has to run client-side (i.e. In the browser), which is restricting.
* Maintaining large numbers of static pages as files can be impractical without automated tools.

***Application areas of Static Website****:*

Need of Static web pages arise in the following cases:

* Changes to web content is infrequent
* List of products / services offered is limited
* Simple e-mail based ordering system should suffice
* No advanced online ordering facility is required
* Features like order tracking, verifying availability of stock, online credit card transactions, are not needed
* Web site not required to be connected to back-end system.

Static Web pages are very simple in layout and informative in context. Creation of static website content requires great level of technical expertise and if a site owner is intended to create static web pages, they must be very clear with their ideas of creating such pages since they need to hire a web designer.

**Dynamic Web Sites**

A **dynamic web page** is a kind of web page that has been prepared with fresh information (content and/or layout), for each individual viewing. It is not static because it changes with the time (ex. A news content), the user (ex. preferences in a login session), the user interaction (ex. web page game), the context (parametric customization), or any combination of the foregoing.

***Two types of dynamic web sites***

**Client-side scripting and content creation**

Using client-side scripting to change interface behaviors *within* a specific web page, in response to mouse or keyboard actions or at specified timing events. In this case the dynamic behavior occurs within the presentation. Such web pages use presentation technology called rich interfaced pages. Client-side scripting languages like JavaScript or Action Script, used for Dynamic HTML (DHTML) and Flash technologies respectively, are frequently used to orchestrate media types (sound, animations, changing text, etc.) of the presentation.

The Client-side content is generated on the user's computer. The web browser retrieves a page from the server, then processes the code embedded in the page (often written in JavaScript) and displays the retrieved page's content to the user.

**Server-side scripting and content creation**

Using server-side scripting to change the supplied page source *between* pages, adjusting the sequence or reload of the web pages or web content supplied to the browser. Server responses may be determined by such conditions as data in a posted HTML form, parameters in the URL, the type of browser being used, the passage of time, or a database or server state. Such web pages are often created with the help of serverside languages such as PHP, Perl, ASP, ASP.NET, JSP, ColdFusion and other languages. These server-side languages typically use the Common Gateway Interface (CGI) to produce *dynamic web pages*. These kinds of pages can also use,on the client-side, the first kind (DHTML, etc.).

**Server-side dynamic content is more complicated:**

(1) The client sends the server the request.

(2) The server receives the request and processes the server-side script such as [PHP] based on the query string, HTTP POST data, cookies, etc.

The dynamic page generation was made possible by the Common Gateway Interface, stable in 1993. Then Server Side Includes pointed a more direct way to deal with server-side scripts, at the web servers.

***Application areas of Dynamic Website***

Dynamic web page is required when following necessities arise:

* Need to change main pages more frequently to encourage clients to return to site.
* Long list of products / services offered that are also subject to up gradation
* Introducing sales promotion schemes from time to time
* Need for more sophisticated ordering system with a wide variety of functions
* Tracking and offering personalized services to clients.
* Facility to connect Web site to the existing back-end system

**NOTE:** The fundamental difference between a static Website and a dynamic Website is a static website is no more than an information sheet spelling out the products and services while a dynamic website has wider functions like engaging and gradually leading the client to online ordering. But both static web site design and dynamic websites design can be designed for search engine optimization. If the purpose is only to furnish information, then a static website should suffice. Dynamic website is absolutely necessary for e-commerce and online ordering

**2.0 WEBDESIGN CONCEPT**

**Unit Structure**

**2.1 Basic rules of Web Page design**

**2.2 Types of Website**

**2.3 Importance of websites to any business**

**2.1 5 Basic Rules of Web Page Design and Layout**

**Your Web Site Should Be Easy to Read**

The most important rule in web design is that your web site should be easy to read. What does this mean? You should choose your text and background colors very carefully. You don't want to use backgrounds that obscure your text or use colors that are hard to read. Dark-colored text on a light-colored background is easier to read than light-colored text on dark colored background.

You also don't want to set your text size too small (hard to read) or too large (it will appear to shout at your visitors). All capitalized letters also give the appearance of shouting at your visitors. Keep the alignment of your main text to the left, not centered. Center-aligned text is best used in headlines. You want your visitors to be comfortable with what they are reading, and most text (in the West) is left aligned.

**Your Web Site Should Be Easy to Navigate**

All of your hyperlinks should be clear to your visitors. Graphic images, such as buttons or tabs, should be clearly labeled and easy to read. Your web graphic designer should select the colors, backgrounds, textures, and special effects on your web graphics very carefully. It is more important that your navigational buttons and tabs be easy to read and understand than to have "flashy" effects. Link colors in your text should be familiar to your visitor (blue text usually indicates an unvisited link and purple or maroon text usually indicates a visited link), if possible. If you elect not to use the default colors, your text links should be emphasized in some other way (boldfaced, a larger font size, set between small vertical lines, or a combination of these). Text links should be unique -- they should not look the same as any other text in your web pages. You do not want people clicking on your headings because they think the headings are links. Your visitors should be able to find what they are looking for in your site within three clicks. If not, they are very likely to click off your site as quickly as they clicked on.

**Your Web Site Should Be Easy to Find**

How are your visitors finding you online? The myth, "If I build a web site, they will come," is still a commonly held belief among companies and organizations new to the Internet. People will not come to your web site unless you promote your site both online and offline. Web sites are promoted online via search engines, directories, award sites, banner advertising, electronic magazines (e-zines) and links from other web sites. If you are not familiar with any of these online terms, then it is best that you have your site promoted by an online marketing professional. Web sites are promoted offline via the conventional advertising methods: print ads, radio, television, brochures, word-of-mouth, etc. Once you have created a web site, all of your company's printed materials including business cards, letterhead, envelopes, invoices, etc. should have your URL printed on them.

**Your Web Pages' Layout Should Be Consistent Throughout the Site**

Just as in any document formatted on a word processor or as in any brochure, newsletter, or newspaper formatted in a desktop publishing program, all graphic images and elements, typefaces, headings, and footers should remain consistent throughout your web site. Consistency and coherence in any document, whether it be a report or a set of web pages, project a professional image. For example, if you use a drop shadow as a special effect in your bullet points, you should use drop shadows in all of your bullets. Link-colors should be consistent throughout your web pages. Typefaces and background colors, too, should remain the same throughout your site. Color-coded web pages, in particular, need this consistency. Typefaces, alignment in the main text and the headings, background effects, and the special effects on graphics should remain the same. Only the colors should change.

**Overall Web Page Size Should be 75K or Less**

Studies have indicated that visitors will quickly lose interest in your web site if the majority of a page does not download within 15 seconds. (Artists' pages should have a warning at the top of their pages.) Even web sites that are marketed to high-end users need to consider download times. Sometimes, getting to web site such as Microsoft or Sun Microsystems is so difficult and time consuming that visitors will often try to access the sites during non-working hours from their homes. If your business does not have good brand name recognition, it is best to keep your download time as short as possible. A good application of this rule is adding animation to your site. Sure, animation looks "cool" and does initially catch your eye, but animation graphics tend to be large files. Test the download time of your pages first. If the download time of your page is relatively short and the addition of animation does not unreasonably increase the download time of your page, then and ONLY then should animation be a consideration. Finally, before you consider the personal preferences of your web page design, you should consider all of the above rules FIRST and adapt your personal preferences accordingly. The attitude "I don't like how it looks" should always be secondary to your web site's function. Which is more important: creative expression corporate image or running a successful business?

**2.2 Types of websites**

There are three website types:

* Content (information)
* E-Commerce (online sales)
* Interaction (Blogs, Bulletin Boards, Chat Rooms, and gaming sites).

Website types are implemented as dynamic or static:

* Dynamic websites have frequently changing content or interact with the visitor. Dynamic websites typically use server side programming to generate HTML code as requested.
* Static websites are written in pure HTML perhaps with a bit of JavaScript and only change when manually updated. It's common to see combinations of the three types as well as combinations of dynamic and static. It's important to understand what they are are and what works for you!

**Content or information** websites may be dynamic or static and the implementation depends upon how frequently the website information changes. News sites and search engines are dynamic database driven websites to allow rapid information update. Many corporate websites are static but that is changing rapidly.

**E-commerce** sites are almost always dynamic allowing for frequent product changes, pricing changes, sales and inventory updates. Simple e-commerce transactions like membership applications and online payment may be interactive while the main website is still static.

**Interaction sites** (Blogs, Bulletin Boards, Chat Rooms, and gaming sites) are dynamic.

Websites can be a combination of Content, E-Commerce and Interactive as well as a combination of dynamic and static. It's common to see a combination of dynamic and static implementations and combination of types. Because of this, more website owners are moving toward dynamic pages.

Pictures and graphics are always good to liven up a website. You should have at least some because the phrase "one picture is worth a thousand words" is as true now as when it was coined.

**2.3 The Importance of Having a Website for Any Business**

One of the most surprising things when you look at small businesses is how many of them don't have a website. You would think that in this day and age everybody would know how important a website is for all businesses. Clearly that is not the case. Any business that does not have a website is missing out on one of the most powerful marketing tools available to them.

So should your business have a website, even if your business is small and sells products or services you don't think can be sold online? My answer is yes, if you have a business, you should have a website.

The main reason that it is important for businesses to have a website is how people are likely to find you. These days most people will go online and research products and companies before they make a purchase, if you don't have a website you are missing out on all of this potential business. Even if people don't buy your product online they are still likely to research it online so you have to have a website so these people can learn about your business.

Also, don't be so quick to dismiss your product as one that can't be sold online. Nowadays, there's very little that can't be sold over the internet. More than 20 million shoppers are now online, purchasing everything from books to computers to cars to real estate to jet airplanes to natural gas to you name it. If you can imagine it, someone will figure out how to sell it online.

Let me clarify one point: I'm not saying you should put all your efforts into selling your wares over the internet, though if your product lends itself to easy online sales, you should certainly be considering it. The point to be made here is that you should at the very least have a presence on the web so that customers, potential employees, business partners and perhaps even investors can quickly and easily find out more about your business and the products or services you have to offer.

That said, it's not enough that you just have a website. You must have a professional-looking site if you want to be taken seriously. Since many consumers now search for information online prior to making a purchase at a brick-and-mortar store, your site may be the first chance you have at making a good impression on a potential buyer. If your site looks like it was designed by a barrel of colorblind monkeys, your chance at making a good first impression will be lost.

One of the great things about the internet is that it has leveled the playing field when it comes to competing with the big boys. As mentioned, you have one shot at making a good first impression. With a well-designed site, your little operation can project the image and professionalism of a much larger company. The inverse is also true. I've seen many big company websites that were so badly designed and hard to navigate that they completely lacked professionalism and credibility. Good for you, too bad for them.

You also mention that yours is a small operation, but when it comes to benefiting from a website, size does not matter. I don't care if you're a one-man show or a 10,000-employee corporate giant; if you don't have a website, you're losing business to other companies that do.

Here's the exception to my rule: It's actually better to have no website at all than to have one that makes your business look bad. Your site speaks volumes about your business. It either says, "Hey, look, we take our business so seriously that we have created this wonderful site for our customers!" or it screams, "Hey, look, I let my 10-year-old nephew design my site. Good luck finding anything!"

Your website is an important part of your business. Make sure you treat it as such

These days, almost any small business should have a website. With costs being extremely low to develop a website, it's becoming difficult to imagine a reason for any company of any size not to have a website. Many user-friendly, free and open-source content-management systems are available to assist with Web design, so it is even possible to build a basic small business website without a professional Web designer.

**Other importance of having a website includes:**

**Low-Cost Advertising**

The Web has a far wider reach than any other form of advertising. While it takes time to build up enough traffic to your website to make a worthwhile impact on your company's marketing campaign, it costs next to nothing to do so. Your website will be the center of your company's online presence; through it, you advertise your business around the Web on social networking sites, forums and through pay-per-click advertising programs.

**Visibility**

Increasing visibility is one major factor that makes having a website important. Even if people have heard about your company, they may want to carry out research online first, before leaving the house. Provide a map and directions to your company's shops or offices on your website so that visitors are less likely to have trouble finding the place.

**Accessibility**

A website is online and accessible 24 hours a day, every day of the year. Because of this, your customers and potential customers can visit your site for support or information about new and upcoming products and services whenever it is convenient for them. Your website will act as an invaluable and always-available resource for information which would otherwise only be accessible during your company's business hours.

**Sales**

Your website can sell products at any time. Potential customers are not restricted to business hours. Instead, they can go online and purchase products whenever they want. A website with an online shop can provide a dramatic boost in sales