Lesson 01
Cyberspace

Online journalism is journalism more or less produced for the World Wide Web (unlike print, radio and television journalism) .It exploits the unique characteristics of the Internet. A network of networks, joining many government, university and private computers together and providing an infrastructure for the use of E-mail, bulletin boards, file archives, hypertext documents, databases and other computational resources The vast collection of computer networks which form and act as a single huge network for transport of data and messages across distances which can be anywhere from the same office to anywhere in the world.

First conceived by the Advanced Research Projects Agency (ARPA) of the United States government in 1969.The ARPANet was a project funded primarily by U.S. military sources such as the Department of Defense. Journalism is any non-fiction or documentary narrative that reports or analyzes facts and events firmly rooted in time (either topical or historical) which are selected and arranged by reporters, writers, and editors to tell a story from a particular point of view. Journalism has traditionally been published in print, presented on film, and broadcast on television and radio. "Online" includes many venues. Most prominent is the World Wide Web

Distinguishing characteristics of online journalism as compared to traditional journalism
Online = real time
Online journalism can be published in real time, updating breaking news and events as they happen. Nothing new here -- we've had this ability with telegraph, teletype, radio, and TV.

Online = shifted time
Online journalism also takes advantage of shifted time. Online publications can publish and archive articles for viewing now or later, just as print, film, or broadcast publications can. WWW articles can be infinitely easier to access, of course.

Online = multimedia
Online journalism can include multimedia elements: text and graphics (Newspapers and books), plus sound, music, motion video, and animation (Broadcast radio, TV, film), 3D, etc.

Online = interactive
Online journalism is interactive. Hyperlinks represent the primary mechanism for this interactivity on the Web, linking the various elements of a lengthy, complex work, introducing multiple points of view, and adding depth and detail. A work of online journalism can consist of a hyperlinked set of web pages; these pages can themselves include hyperlinks to other web sites. Traditional journalism guides the reader through a linear narrative. The online journalist lets readers become participants, as they click their way through a hyperlinked set of pages. Narrative momentum and a strong editorial voice pull a reader through a linear narrative. With interactivity, the online journalist can pre- determine, to a certain extent, the reader/participant's progress through the material, but manifold navigation pathways, branching options, and hyperlinks encourage the reader/participant to continue to explore various narrative threads assembled by the reporter/writer/editor. A web of interlinked pages is also an ideal mechanism to give reader/participants access to a library of source documents and background information that form the foundation of an extensive journalistic investigation. Readers/participants can respond instantly to material presented by the online journalist; this response can take several forms. Email to the reporter or editor resembles the traditional letter to editor of print publications, but email letters can be published much sooner online than in print. Online journalists can also take advantage of threaded discussions that let readers respond immediately to an article, and to the comments of other readers, in a bulletin board-style discussion that can be accessed at any time. Readers can become participants in the ongoing co-creation of an editorial environment that evolves from the online journalist's original reporting and the initial article. Blogs (short for "Web log", a Web-based journal) make this easy.

Much of the journalism published on the Web and elsewhere online amounts to nothing more than traditional magazine or newspaper articles and graphics, perhaps with some added links to related web sites. By providing an instant, ubiquitous, cheap distribution medium, the Internet adds tremendous value to such articles. Journalists are still experimenting and discovering how best to take advantage of interactivity and hyper linking to create distinctive works that take advantage of the benefits of the online medium

Characteristics of online journalism

Hypertextuality
A news story is connected to other stories, archives, and resources and so on through hyperlinks

Interactivity
  - Complexity of choice available
  - Responsiveness to the user
  - Facilitation of interpersonal communication
  - Ease of adding information
  - Multimediality

It has to do with the media format or formats that may best convey given news story. Media are means of disseminating knowledge.

Characteristics of the Internet
1. Anonymity
2. Interactivity
3. Beyond geography
4. Online community
5. Lower cost to participate in the public sphere
6. Lower threshold for self-expression of political opinions

Potential of the Internet
1. Active, participatory citizenship
2. Not only consumption but production
3. Undermines the centralized control of information
4. Reflects the range of views and ideas
5. Improve the level of civic engagement among younger generation

Limitations of the Internet
Inaccuracy: misrepresent and lie
Internet news audience is smaller than that of the traditional media Entertainment rather than political engagement
"Digital divide": a class system based on (a) computer ownership, (b) Internet access, and (c) computer literacy that corresponds with social economic statuses

How digital journalism has changed the way we access the news?

The development of digital journalism has radically changed the way people access the news. The introduction of the internet opened the way for the creation of an entirely new medium of journalism a online journalism. Online journalism presents users with the unprecedented ability to chose when, where and what news they will receive. The traditional news media of broadcast, print and radio all broadcast, publish or air their bulletins at the time they chose, in the order they chose and to the depth they chose. However, online journalism allows the user to access the news at any time from any computer or personal device with an internet connection. Once connected, the user can select the stories they wish to view and can easily access further information on the story if they so desire.

Interactivity of Online Journalism
These developments have given the user an unprecedented amount of interactivity when accessing the news. People have always interacted with the media however, interactivity is far more flexible in online journalism (DeWold, 2001: 102). Users can sign up for an online newspaper and be regularly emailed stories about their interests; online journalism also gives the user unprecedented possibilities in responding to the story. After reading a story the user can email the journalist to tell them what they though of the article, join a chat group to discuss the article or post a comment on a feedback page.

Construction of Online Journalism
Studies into how users digest content on online journalism sites show that users consume the story in a completely different way to users of traditional journalism media. In the early stages of online journalism many sites where attached to news outlets who simply posted their print story or the script of the radio story onto the page. This proved to be ineffective as writing for the online world is vastly different from writing for the printed page (DeWolk, 2001: 90). Author Martha Sammons pointed out in her Internet Writer Book that people read off the computer screen thirty percent slower then they read off paper. Also, people do not read carefully online, rather they scan. If they cannot quickly and easily find the information they are after they promptly leave the site (DeWolk, 2001: 90).To complement this, online journalism developed its own style of story construction. Presenting the story in chunks allows the reader to quickly scan the story and single out the passages relevant to them (Ward, 2002: 148). Presenting information in the form of bulleted lists, tables, graphs or other clear graphic elements allow the reader to get the information they want quickly (DeWolk, 2001: 92). The writing towards the end of the page should not conclude the story but rather should compel the user to link onto other pages connected to the story.
In broadcast, print and radio the story is presented to the user in a linear fashion. The journalist decides how the story should be constructed and it is presented to the audience in the manner chosen by the journalist. The user would then hear, read or view the story from start to finish giving the user the option of either consuming it or not. To a certain extent, the journalist can try to guide the user through the story but ultimately the result rests with the user (Millison, 2004). The hyper textual nature of online journalism allows the user to read the parts of the story they wish to, link onto other pages within the site, play audio grabs or view short video pieces. To encompass this, the journalist must construct the story to be non-linear, allowing the user to be able to easily follow the story as they want to. Online journalism is the place "where television, radio, and the new media forms of the internet collide" (Hall, 2001: 6). This
   Convergence within Journalism is likely to change everything journalists think they understand about mass media (DeWolk, 2003: 85)

Immediacy of Online Journalism
Immediacy has always been a fundamental element of journalism as the very nature of the new is that it is new Broadcast and radio were traditionally the most immediate form of journalism as, should a major story break, they could interrupt their programming with a bulletin. However, they are still constrained by deadlines and cannot explore the story in too much depth (Gunter, 2003: 48). Print journalism allows story depth but often the story is not reported until the morning after. Online journalism provides perhaps the best arena for distributing news quickly (DeWolk, 2001: 51) as it presents the immediacy of broadcast and radio with the depth of print. However, this has presented a problematic question for news organizations that run both a traditional and online outlet whether or not to break a story on the online site before broadcasting or publishing it. "In the one hand, the news organization wants to take advantage of the incredible speed of the internet and be the one to break the story. On the other hand the organization does not want to beat its own primary news vehicle and tell competitor what it has. The again, the organization wants to use the web site as a promotion for its primary news product. But it does not want to make it unnecessary for people to purchase the newspaper or to watch or listen to a broadcast because they saw the story on the Web already." (DeWolk, 2003: 172-3)

Advantages and disadvantages associated with advertising online

There are many advantages and disadvantages associated with advertising online. The first aspect of advantages is the World Wide Web opens up new communication possibilities for personalized messages to be delivered to targeted individuals (Davis 2000, 113). By positioning an [advertisement] on a website which relates to the target markets specific interests, interest and further speculation should occur. Advertising online enables target marketing, message tailoring, information access, sales potential, creativity, exposure and speed. Secondly, online advertising has the capability to reach a global audience at a fast rate. This enables extensive exposure and is an important characteristic of online advertising, and a major component of why online advertising is so successful.

Thirdly, marketers undertaking new possibilities to perform traditional marketing strategies in electronic environments push higher chances to create synergy. Janal (1995, 47) mentioned that the Internet offers the best multimedia tools for presenting information, through the World Wide Web, a hypermedia environment. It is as further explained that it is a place where marketers can present their information with pictures, animation, sound and text. Indeed the power of Internet has impact on the multitude of advertising formats. This can be seen from the numerous web tools such as banners, rich media, intertials, and interactive broadband commercials as seen on the websites nowadays. These are the multiple forms of online advertising tools used by advertisers over the time aiming towards developing exciting, interactive, eye catching advertisements that can draw consumers' attention, at the same time increasing their brand or sales online. Strauss and Frost (1999, 202) states that the Net's big strength is direct response advertising where direct response leverages the Internet's unique opportunity for two way communication with consumers. Placing advertising in this environment will grants advertises unique opportunity for in the element of interactivity. The interactive capabilities of 'cyberads' offer key advantages for vendors to establish and maintain dialogues with customers (Janal 1995, 269).

The opportunities for creativity in online advertising are limitless. IAB (2005) on the other hand had drafted out a very comprehensive set of 28 good reasons to use interactive advertising that places the overview of interactive advertising advantages. In the list, it provides 28 points on a marketer's potential uses of the internet and corresponds with 28 ways of measure performance.

Disadvantages

Even though there are many advantages for companies who advertise online, there are also some disadvantages involved. Disadvantages of advertising online include: measurement problems, audience characteristics, websnarl, clutter, potential for deception, costs, limited production quality, poor reach and lack of Intrusiveness.

Definition

Online advertising is advertising carried out in the online environment. For example, via Web Sites, email, ads supported software, etc. Though the vehicles have changed, (for example web space and advergaming as opposed to magazine and outdoor advertising) many of the basic principles remain the same as traditional advertising - organizations utilizing paid space to promote their businesses.

Online Advertising

Online advertising is an important element of a business online marketing operations. Online advertising is considered as non-personal information usually persuasive in nature about a product or service by an identified sponsor, hence all paid space on the web or in an e-mail (Strauss, El-Ansary and Frost, 2003, p 367). Businesses clearly recognize that by advertising online they reach their target market in a fast and an efficient way where they can interact with consumers; this is clearly indicated by the fact that advertising spending is up to 12.6%   [1] during the first part of 2005. In Australia alone, online advertising expenditure rose by 64% in 2004 hitting a record high of $388 million (The audit Bureau of Circulations). Online advertising can be divided into two categories: legitimate and illegitimate. Legitimate advertising can be found in the form of advertising networks and opt-ine-mail advertising. Illegitimate advertising is predominantly evident in   spamming.   Online   advertising   creates innovative, comparatively low cost and highly targeted opportunities for the online advertisers/marketers.

Types/Examples of Online Advertising

Spyware/Adware
Types of online advertising and the vehicles, which it is displayed within, grow daily as technology expands to create more opportunities. Some of them are intrusive and are usually labeled as spy ware or aware. For example,   Pop-up advertisements are designed to drive traffic to the sponsor's website. They usually occur when a new browser is opened. Initially, pop-ups were extremely effective due to the surprise and novelty factor. However, constant and annoying pop-ups have left viewers jaded and resentful, and have increased sales for   pop-up blocking programs.   Pop-under ads were developed as a response to pop-ups perceived negativity.   Pop-under work in a similar way to   pop-ups, except they appear behind the newly opened browser and so are only visible after the viewer closes the page.

Web Banner
Web banners or banner ads are advertisements that are embedded into web pages similar to the way advertisers pay for space within a magazine. Web banners are designed to drive traffic to a website and account for 54% of total online advertising revenue [2].Web banners and pop-ups can be the useful tools for online advertisers; however new web browsers provide the web surfer with options to prevent pop-ups and turn off images from selected (or all) websites. Beside that, similar to the protection of computer against the virus here come the anti-spyware or anti-adware softwares, such as SpywareBlaster and Lavasoft Ad- Aware.

Web Portal/Portal Site
Web portal or portal site is another way of online advertising. Through web portal there are more chances to exploit the entire user by putting up web banners. Thus, the advertisers can target the user at one place by choosing the relevant category provided in web portal. For example, Yahoo! have provided users with search engines, email, chat rooms, instant messaging tools, etc., which are all free for registration, with web banners or interactive broadband commercial included. Using this strategy can attract more users to visit their website and use their product, at the same time increase the number of advertisers to advertise.

Weblog/Blog
A more recent addition to the online advertising repertoire is weblogs or blogs. The full economic impact blogs will have on businesses at the current time are immeasurable; it is obvious however that they hold significant impact as they have had the power to generate awareness, burnish brands, direct online traffic and alter the existing organic flow of traffic. But this has once given a chance to the spammers by adding link to their commercial website in others' blogs, which is called blog spam or link spam.

Interactive Broadband Commercial
Another type of online advertising that is rising in prominence is Interactive   Broadband   Commercials: TV-like "video ad" units placed in the virtual marketplace, a highly targeted way to reach consumers. Examples of content include (but are not limited to): streaming video,   animation,   online gaming, and   online music video content in a player environment. These ads can be put out in live, archived, and downloadable streaming content. There are hundreds of other examples and types of online advertising tools and techniques; increasingly the list is restricted only by a marketer's imagination.

Capabilities of Online Advertising
Customization Features
"Customization is a website's ability to present individualized content for each user (Mcgraw-hill, 2004, p186). There are two different ways for a website to customize their site for users: personalization and tailoring. Personalization allows the user to customize the personal preferences on the site. To be able to give the specified preferences to the user each time they log on to the page, the website uses Log-in registration and/or cookies (Mcgraw-hill, 2004, p186).Tailoring is used by the site to publish a unique version of the site to address the users specific interests, habits and needs (Mcgraw-hill, 2004, p187).

Banner Advertisement - A graphical image, usually in the shape of a rectangle, used as an advertisement on a Web site.

Pop Up - A type of advertisement that is automatically displayed in a second smaller browser window upon loading or unloading a normal web page. Pop ups advertisements tend to cost advertisers more since their visibility is higher but are often considered annoying by web site visitors since they are considered obtrusive.

Advertising is rapidly becoming the backbone of marketing. Different firms opt to different mediums of advertising in accordance with the nature of a product. Today, Internet Advertising has become one of the most up-to-date and fastest medium of making products popular. In 1990's, Internet Advertising became popular and the companies started building their websites. A website, 'www.geocities.com' gave birth to a new form of advertising, offering a layman a chance to post his/her own homepage. Geocities placed a banner at the top and/or bottom of every page that was displayed off of their server. This way, Geocities got free advertising each time somebody was served a page from one of their member's sites (as all sites were hosted on Geocities hardware). This developed into the banner ad, now a common form of Internet advertising found throughout the WWW. Electronic mail is another major form of Internet Advertising. A few companies began to amass collections of personal e-mail addresses with the intention of selling those lists to companies wishing to mass market those addresses. This form of advertising, also known as "spam mailing", is now predominantly used by adult sites and other small companies with little ability to use the other two forms of Internet advertising stated above.

Advantages as an Advertising Medium

Interactivity
The Internet has the facility for individuals and organizations to communicate directly with one another regardless of distance or time. Interactivity is one of the most prominent features of Internet advertising. Some people mention that the Internet advertising enables marketers to communicate actively with their target customers, and to solve problems immediately.

International Audience
The Internet is, by definition, the international medium. Wherever Internet users are, even on a small island in the Pacific Ocean, they can be online once they hook up with the Internet. This is one attractive characteristic of the Internet as an advertising medium: the Internet can reach a worldwide audience without asking advertisers to pay more.

Upscale Audience
The Internet reaches an audience long seen as attractive to advertisers. In terms of demographic characteristics, they are higher-income, educated, upscale, young and managerial people (Hyland, 1998).

Tracking
Advertisers can track how users interact with their brands and products, and get to know what is interesting to their current and prospective customers. For example, a car manufacturer can track how a user progresses through its site to determine whether more users are interested in the safety information or the "extras" that come with a particular model.

Low Cost
For now, Internet advertising can be done relatively inexpensively. However, actual cost per thousand can be high, compared with traditional media, so that an advertiser can get into Internet advertising for fewer total dollars, yet actually spend more to reach each consumer.

Convenience
From the consumer's perspective, Internet advertising has the advantage of convenience. Consumers can browse, order, and receive products without leaving home.

Blog -- (web LOG)

A blog is basically a journal that is available on the web. The activity of updating a blog is "blogging" and someone who keeps a blog is a "blogger." Blogs are typically updated daily using software that allows people with little or no technical background to update and maintain the blog. Postings on a blog are almost always arranged in chronological order with the most recent additions featured most prominently.

Portal

Usually used as a marketing term to describe a Web site that is or is intended to be the first place people see when using the Web. Typically a "Portal site" has a catalog of web sites, a search engine, or both. A Portal site may also offer email and other service to entice people to use that site as their main "point of entry" (hence "portal") to the Web. Home page. Originally, the web page that your browser is set to use when it starts up. The more common meaning refers to the main web page for a business, organization, person or simply the main page out of a collection of web pages
• Blog is short for weblog. A weblog is a journal (or newsletter) that is frequently updated and intended for general public consumption. Blogs generally represent the personality of the author or the Web site. May or may not be interactive.
• Blogging (action), Blogger (person)
• Wiki - website that allows the visitors themselves to easily add, remove, and otherwise edit and change available content, and typically without the need for registration. This ease of interaction and operation makes a wiki an effective tool for mass collaborative authoring.

Internet as a tool for journalist

Help for journalists

There are specialist sites for different types of reporting, like business or environment, or for specific skills like copy editing/sub-editing. For information on wider journalism and media issues, try the International Federation of Journalists, including authors' rights, gender issues, and trade union matters, the International Freedom of Expression Exchange, and Reporters Without Borders.

Reference tools

Wikipedia, the volunteer encyclopedia

Compilations of reference facilities abound on the web.Infoplease have a useful selection, including almanacs for current information. One of the innovations of the web is the great co-operative encyclopedia, Wikipedia, which now attracts 50m+ hits a day. Written by volunteers, it spans over 700,000 articles in English, with smaller quantities in dozens of other languages. Individuals can edit the contributions, but their changes are monitored by teams of other volunteers, so there are controls over what appears. A real plus is that entries can be updated in a matter of hours when something significant changes. Traditional encyclopedias have migrated online and can be useful for general knowledge queries, especially in fields where current events are not likely to outdate entries. Free offerings tend to be smaller, or older, versions: Encyclopedia Britannica offers only limited results unless you buy a subscription. Other possibilities include the Columbia Electronic Encyclopedia, with over 50,000 entries, and Microsoft's Encarta, through the free pass offered in MSN Search (their paid service covers some 60,000 articles). Yearbooks or almanacs may lack changes that have occurred since publication; it's another area where the net can keep ahead. The online version of the CIA World Fact book is updated through the year. It offers a welter of facts and figures on the countries of the world, and is also downloadable.

Experts:

ProfNet provides links to thousands of news and information officers in the Americas, Europe and Africa, and offers a searchable database of 16,000+ experts (mostly in the US, UK and Canada, it appears). They operate for email queries on weekdays from 9am to 11pm, Greenwich Mean Time. Journalism Net has a good round-up of sources for experts from various countries and different disciplines.

Figures Statistics:
The UN is a central starting point. Go to the Statistics division – as well as social indicators for the member countries, there are links to figures for trade, environment and much else. Go to the different world bodies, like the World Bank or the Food and Agriculture Organization, for detail on specialist areas. Via the home pages of the UN missions for each state, there are links to government information for each country.
The UN's Info Nation is a really straightforward site for creating charts of comparative data from groups of countries. You can produce bar charts on anything from crime to tourism. As a way of providing an instant customized illustration, for articles on subjects ranging from TV ownership to refugees, it's worth trying. CALCULATIONS: For everyday computations, use a search engine like Google. MONEY: Plenty of search engines and portals will convert foreign currencies, but watch when little-traded currencies were last updated.

Words Dictionaries:
There seem to be shelves of dictionary sites. But given that Google provides word definitions, why bother going elsewhere? AskOxford.com, based on the Compact Oxford English Dictionary, was probably the best

Style Guides:
There are no absolutes when it comes to writing styles: it is up to an organization to decide what is best for its readers or listeners, in terms of grammar, spelling, names, titles etc. But if no-one is laying down the rules for you, consult a manual from an established media concern. AP style is commonly used, not only in the USA, but the AP Stylebook must be paid for – likewise the Reuters guide. There are several UK guides offered freely over the web (downloadable in some cases):
●The BBC
●The Times
●The Economist
●The Guardian

Quotations:
The net should be a good place to find quotations – they can be easily indexed, and it is possible to put a phrase or sentence into a search such as Google to find out who said it. There are plenty of sites for quotations, but they are none too comprehensive, and are weak on recent quotes.

Translators:
Machine translation is one of the boons of the net. While it used to be good enough to give only the gist of the original text, it is increasingly reliable. Nevertheless, human intervention is still required to ensure accuracy and make perfect sense. Typically, this translated passage can just about be understood, but requires editing to be used in a news report Both Google and Yahoo! offer a 'translate this page' link alongside search results in foreign languages. Google has improved its facility by a huge throughput of translated documents from the UN and elsewhere – educating its own system. It has a 'language tools' button on its search page, offering to translate, between varieties of languages, either a text (which you paste in) or a web page (write the URL). It provides 18 pairs of languages – a 'pair' would be English into Chinese, or German to French.

Places Time:
Knowing the time in other countries can be important if you are trying to contact people, or check when events happen. Time Zone Converter starts automatically with the time where you are, and you select the place where you need the current time. An alternative approach from World Time Server lets you set a time in one place, and then check the time somewhere else.

Maps:

To find a local map, writing the place name and 'map' into a search engine may produce better results than using the leading map sites, which lack detailed coverage for many countries. Google Earth, with downloadable software, offers the ability to swoop down from space, looking at ever more detailed satellite images, and then searching for streets or post codes on the results.

Diffusion of Innovation

Innovation:
An idea, practice, or object that is perceived as new by an individual or other unit of adoption (Rogers, 1995)

Diffusion: The process by which an innovation is communicated through certain channels over time among the members of a social system (Rogers, 1995)

Definition
In his comprehensive book Diffusion of Innovation, Everett Rogers defines diffusion as the process by which an innovation is communicated through certain channels over time among the members of a social system. Rogers' definition contains four elements that are present in the diffusion of innovation process. The four main elements are:

(1) Innovation - an idea, practices, or objects that is perceived as knew by an individual or other unit of adoption.
(2) Communication channels - the means by which messages get from one individual to another.
(3) Time - the three time factors are:
(a) Innovation-decision process   (b) Relative time with which an innovation is adopted by an individual or group.   (c) Innovation's rate of adoption.
(4) Social system - a set of interrelated units that are engaged in joint problem solving to accomplish a common goal.

Rogers' Diffusion of Innovation

Stages of adoption:

Awareness - the individual is exposed to the innovation but lacks complete information about it Interest - the individual becomes interested in the new idea and seeks additional information about it

Evaluation - individual mentally applies the innovation to his present and anticipated future situation, and then decides whether or not to try it

Trial - the individual makes full use of the innovation

Adoption - the individual decides to continue the full use of the innovation

Factors affecting diffusion

- Innovation characteristics

- Individual characteristics

- Social network characteristics

- Innovation characteristics

Innovation characteristics

• Observability
The degree to which the results of an innovation are visible to potential adopters

• Relative Advantage
The degree to which the innovation is perceived to be superior to current practice

Compatibility
The degree to which the innovation is perceived to be consistent with socio-cultural values, previous ideas, and/or perceived needs

• Trialability
The degree to which the innovation can be experienced on a limited basis

• Complexity
The degree to which an innovation is difficult to use or understand

Individual characteristics
• Innovativeness

Originally defined by Rogers: the degree to which an individual is relatively earlier in adopting an innovation than other members of his social system–

Modified & extended by Hirschman (1980):
Inherent / actualized novelty seeking
Creative consumer

• Reliance on others as source of information (Midgley & Dowling)
Social network characteristics

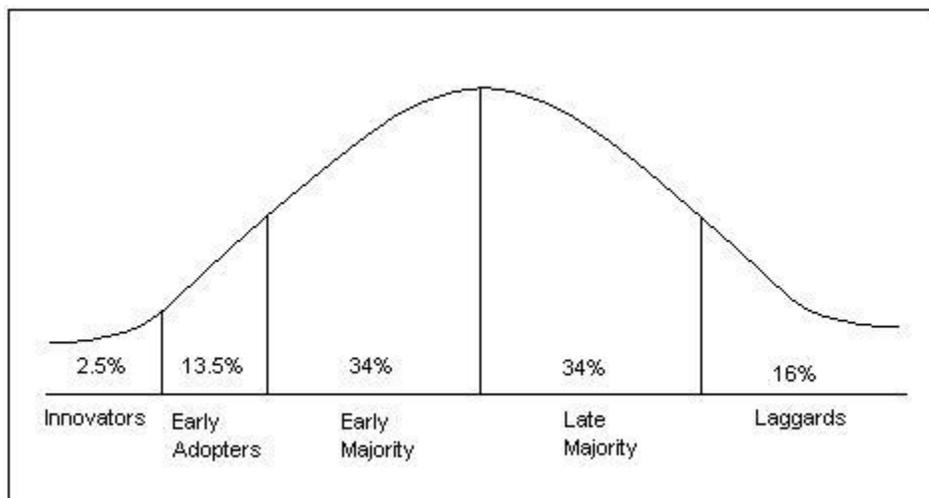• Opinion leadership: number of nominations as source of information
 Other possible factors

• Lyytinen & Damsgaard (2001)

Social environment of diffusion of innovation

Marketing strategies employed

Institutional structures (e.g., government)

Diffusion research examines how ideas are spread among groups of people.   Diffusion goes beyond the two-step flow theory, centering on the conditions that increase or decrease the likelihood that an innovation, a new idea, product or practice, will be adopted by members of a given culture.   In multi-step diffusion, the opinion leader still exerts a large influence on the behavior of individuals, called adopters, but there are also other intermediaries between the media and the audience's decision-making.   One intermediary is the change agent, someone who encourages an opinion leader to adopt or reject an innovation (Infante, Rancer, & Womack, 1997).

Innovations are not adopted by all individuals in a social system at the same time.   Instead, they tend to adopt in a time sequence, and can be classified into adopter categories based upon how long it takes for them to begin using the new idea.   Practically speaking, it's very useful for a change agent to be able to identify which category certain individuals belong to, since the short-term goal of most change agents is to facilitate the adoption of an innovation.   Adoption of a new idea is caused by human interaction through interpersonal networks.   If the initial adopter of an innovation discusses it with two members of a

given social system, and these two become adopters who pass the innovation along to two peers, and so on, the resulting distribution follows a binomial expansion.

Adopter Categorization
The criterion for adopter categorization is innovativeness. This is defined as the degree to which an individual is relatively early in adopting a new idea then other members of a social system. Innovativeness is considered "relative" in that an individual has either more or less of it than others in a social system.
Fig. 1 - Adopter categorization on the basis of innovativeness

Adopter distributions closely approach normality.   The above figure shows the normal frequency distributions divided into five categories: innovators, early adopters, early majority, late majority and laggards. Innovators are the first 2.5 percent of a group to adopt a new idea. The next 13.5 percent to adopt an innovation are labeled early adopters. The next 34 percent of the adopters are called the early majority. The 34 percent of the group to the right of the mean are the late majority, and the last 16 percent are considered laggards.

Adopter Categories

Innovators are eager to try new ideas, to the point where their venturesome ness almost becomes an obsession. Innovators' interest in new ideas leads them out of a local circle of peers and into social relationships more cosmopolite than normal.   Usually, innovators have substantial financial resources, and the ability to understand and apply complex technical knowledge. While others may consider the innovator to be rash or daring, it is the hazardous risk-taking that is of salient value this type of individual. The innovator is also willing to accept the occasional setback when new ideas prove unsuccessful.

Early adopters tend to be integrated into the local social system more than innovators. The early adopters are considered to be localities, versus the cosmopolite innovators. People in the early adopter category seem to have the greatest degree of opinion leadership in most social systems. They provide advice and information sought by other adopters about an innovation. Change agents will seek out early adopters to help speed the diffusion process. The early adopter is usually respected by his or her peers and has a reputation for successful and discrete use of new ideas.

Members of the early majority category will adopt new ideas just before the average member of a social system. They interact frequently with peers, but are not often found holding leadership positions. As the link between very early adopters and people late to adopt, early majority adopters play an important part in the diffusion process. Their innovation-decision time is relatively longer than innovators and early adopters, since they deliberate some time before completely adopting a new idea. Seldom leading, early majority adopters willingly follow in adopting innovations.

The late majority are a skeptical group, adopting new ideas just after the average member of a social system. Their adoption may be borne out of economic necessity and in response to increasing social pressure. They are cautious about innovations, and are reluctant to adopt until most others in their social system do so first. An innovation must definitely have the weight of system norms behind it to convince the late majority. While they may be persuaded about the utility of an innovation, there must be strong pressure from peers to adopt.

Laggards are traditionalists and the last to adopt an innovation. Possessing almost no opinion leadership, laggards are locality to the point of being isolates compared to the other adopter categories. They are fixated on the past, and all decisions must be made in terms of previous generations. Individual laggards mainly interact with other traditionalists. An innovation finally adopted by a laggard may already be rendered obsolete by more recent ideas already in use by innovators. Laggards are likely to be suspicious not only of innovations, but of innovators and change agents as well.

Adopter categorization

Innovators (2.5%),
1. **Innovators** - venturesome, educated, multiple info sources, greater propensity to take risk
2. Less self-conscious / 'the bleeding edge of technology'

Early Adopters (13.5%),
1. **early adopters -** social leaders, popular, educated
2. Tend to be well-connected opinion makers
3. Some tend to look for new innovations - looking for new fashions

Early Majority (34%),
   Early majority - deliberate, many informal social contacts
   Adopt since something has been shown to work

Late Majority (34%),
   late majority - skeptical, traditional, lower socio-economic status

Laggards (16%)
   Laggards - neighbors and friends are main info sources, fear of debt
   Don't like the new innovation - But they might be right!

Interactive media have grabbed the attention of communication researchers in the latter half of the 1990s, but the focus to date has been primarily on media audiences and their use of these new forms. This paper suggests four approaches that may help provide theory based underpinnings in a different area: the study of journalists and the ways in which their roles and jobs are changing. The approaches are gate-keeping theory; diffusion of innovation theory; sociological perspectives, particularly those involving the sociology of news work; and a somewhat eclectic perspective that explores the idea of journalism as a potential force of cohesion in an increasingly fragmented society.

Introduction

The explosion in interactive media forms has grabbed the attention of communication scholars in the latter half of the 1990s. The number of studies is burgeoning, and new ones appear at a steadily accelerating pace. The focus to date has been primarily on the audience for computer-based media forms, particularly on the uses and effects of these new media. Adding to our understanding of computer-mediated communication have been explorations of everything from the effects of computer and video games on adolescents' self-perceptions [(Funk and Buchman, 1996)] to audience perceptions of interactivity in e-mail sent to a network news show [(Newhagen, Cordes and Levy, 1995)] to a whole host of forays into the constitution, implications and ethics of online community (see, for example, [Jones, 1995]; [Brennen and Primeaux, 1997]; [Weinrich, 1997]).

The interest in online audiences may be especially acute because of the nature of these newer media forms: by definition, interactive media blur the lines between the receivers and senders of a mediated message. The use of a medium such as the Internet obviously involves not only active participation in the traditional audience roles of selecting and processing media messages, but active participation in creating them, as well. However, the traditional receivers are not the only ones profoundly affected by this change. The traditional senders of media messages -- the journalists -- are faced not just with a new delivery method but with what may be a fundamental shift in their role in the communication process. How is what we know as "traditional" journalism similar to or different from online journalism? How does the nature of the interactive medium affect what journalists do?

This paper will suggest four foundations, resting on existing theories and conceptual approaches, upon which researchers might build in studying that changing journalistic role. Morris and Ogan [(1996)] have provided a valuable framework for exploration of the Internet as a mass medium, outlining the application of such theories as critical mass, social presence and media richness. This paper seeks to provide a similar framework, but with a narrower focus: journalists swept up in challenges to their one-time franchise of creating and delivering mass-mediated messages. New conceptual paradigms eventually may evolve to

help us study their role. But before we take that leap, we have much to learn by using familiar aids to guide us along new paths.

Gate-keeping Theory
One of the most easily accessible theories is the journalist as gate-keeper, a role that clearly seems threatened by a medium in which users can put their fingers on virtually any bit of information that interests them. "No other medium," one observer has suggested, "has ever given individual people such an engaged role in the movement of information and opinion or such a proprietary interest in the medium itself" [(Katz, 1994,50)]. Though the term "gate keeper" originated with sociologist Kurt Lewin, it was first applied directly to journalists by White, who studied the choices made by a wire service editor at a small Midwestern newspaper. "Mr. Gates," who selected a relatively limited number of stories for publication and rejected the rest, saw to it that "the community shall hear as a fact only those events which the newsman, as the representative of his culture, believes to be true" [(White, 1950, 390)]. Subsequent studies have indicated that the journalist's self-perception as the person who decides what people need to know is deeply ingrained. Indeed, it has been suggested that the identification and dissemination of what is worth knowing is the journalist's most basic and most vital task in a democratic society, in which information plays a central role [(Janowitz, 1975)]. It would seem that the notion of gate keeping goes right out the window with the Internet. The 'Net, and its user-friendly World Wide Web graphical overlay, is the best example yet of a postmodern medium; it provides the opportunity for creation of a highly personal pastiche, in which all importance, all meaning is relative to an individual perspective. Users can find anything they want online. They don't need someone else to do the picking and choosing. They don't need someone else to decide what's important. They don't need someone else to digest and package their information. They don't need someone else to interpret that information for them. Or do they?
Gate-keeping theory may provide a more valuable basis for study in this new media environment than it first appears. "What happens when the gate keeper goes away?" is not the only question to be asked. It might not even be the best question. Although few published studies have specifically addressed gate-keeping in the online environment, there is some evidence that journalists see that function as evolving and adapting rather than disappearing. A study by Singer [(1997)] indicates people inside the newsroom are modifying their definition of the gate keeper to incorporate notions of both quality control and sense-making. In particular, they see their role as credible interpreters of an unprecedented volume of available information as fundamental to their value -- even their survival -- in a new media environment. Her findings are in line with the most recent survey by Weaver and Wilhoit [(1996)], who found that journalists continue to see their   primary role as interpreters, rather than mere gatherers and disseminators, of information.
Those findings raise interesting follow-up questions for interactive media researchers to
pursue. Do the growing numbers of journalists now working online also value the interpretive role? If so, how might they see themselves fulfilling it? Another approach might be to examine whether the real or perceived need for a gate-keeping or sense- making role -- among both journalists and members of the public -- increases or decreases as the amount of information expands and people are empowered to make their own news judgments. Although the evidence is still largely anecdotal, there is some indication that online user -- despite much-publicized exclamations of elation at their new freedom from media control over information -- may actually be looking for some sort of gate keeper. For instance, with the Communication Decency Act thrown out as unconstitutional, one of the hottest topics for Internet access providers today is how to keep children from seeing certain content online. The perceived solution, so far, has largely been a technological one: filtering software such as Cyber Sitter or Net Nanny to carry out, in effect, editorial decisions about what is appropriate and what is not. It seems that people do still want someone or something to make -- or help them make -- judgments about content.   Or consider "knowbots," the little personalizable pieces of software that will go rooting around like truffle-hunting pigs in the incomprehensible, and exponentially expanding, vastness of the online universe to find content that matches users' identified interests. In addition to help making judgments, people are searching for help in finding information.   Indeed, they also may be looking for help of a more human nature -- from, in fact, the very journalists whose influence they can, if they choose, escape online. Aside from the search engines, the most popular and widely used sites on the Web include many of those produced by

employees of traditional media outlets, from CNN to USA Today to ESPN.People are even willing to pay $49 a year for access to the online Wall Street Journal. In other words, they are turning to their favorite selectors, organizers and packagers of information -- ones whose brand identity they know and, at least to some extent, trust. Matt Drudge, the pseudonymous online scribe who boasts of having no editor, also has no credibility.   Michael Schudson began his recent book, The Power of News [(1995)], by inviting readers to imagine a world in which everyone is able to deliver information directly to everyone else through a computer, a world in which everyone can be his or her own journalist. He suggests that people would quickly become desperate to figure out which sources were legitimate and would soon be begging for help in sorting through the endless information. Furthermore, he said, they would prefer to have that help come from a source that was at least relatively savvy about what all those other people were talking about, relatively nonpartisan and therefore relatively trustworthy.   Journalism, in short, would pretty quickly be reinvented.

The world Schudson describes is, of course, more or less the world in which we live, one in which every politician, advertiser, hobbyist and lunatic is able to communicate with us directly through our computers. So perhaps it is time to revisit gate-keeping theory in this new environment. Though the role is undoubtedly changing, it seems unlikely to lose all relevance any time soon. Potential questions for additional intellectual exploration might include:

* Who are the gate keepers online? What attributes or skills will online gate keepers need?

* How does the concept of news judgment, which underlies gate-keeping theory, change as the media change? Does it become a matter of personal taste or does it encompass a broader, more public-minded component?

* If users do want gate keepers -- at least of some sort, at least some of the time – what sorts of functions might those gate keepers perform? Do users prefer that role be performed by humans or by software? Are the ideal functions different for each?

* The original need for gate-keeping journalists, in White's conception and the studies that followed his, came about because of the limited space (or time, for broadcasters) available in traditional media. Online media such as the Internet have unlimited space. Are there other limits, such as the user's time and patience, or the media organization's resources, that create comparable constraints? If so, how can they best be handled?

* How is the gate-keeping function influenced by the interactive nature of this medium? For instance, "push" technology lets users specify their interests and receive updates about them in an e- mailbox. There is already concern that online journalists' news decisions are being perhaps unduly influenced by user feedback [(Tucher, 1997)]. Will those influences continue to escalate? A re-examination of gate-keeping theory, then, can generate questions that are both plentiful and meaty. They offer opportunities to connect some of the existing scholarly emphasis on online users to studies whose focus lies within the newsroom. The following two approaches also can shine light in the same vicinity.

Diffusion of Innovation
Diffusion of innovation, a theory applied most directly to communication studies by Rogers [(1995)] and those who have built on his work, deals specifically with the spread of change through a social system; it therefore is a natural for this field of study. Again, much of the emphasis has been on diffusion among members of the media audience, ranging from an exploration of readership characteristics of early adopters [(Schweitzer, 1991)] to the degree to which the Internet is being incorporated into consumers' information-gathering patterns [(Stempel and Hargrove, 1996)] to a examination of likely predictors of personal computer adoption ([Lin, 1997], and earlier work). Studies within the newsroom also have been undertaken; the adoption of such new technologies as computer pagination, to offer an example from the world of print journalism, has received considerable attention (see, for instance, Russial, [1994]; Underwood, Giffard and Stamm, [1994]).   Researchers also have begun to trace the use of computers within the newsroom for a variety of information-gathering tasks, from data analysis [(Friend, 1994)] to searches of online records [(Davenport, Fico and Weinstock, 1996)]. Garrison, who did extensive, earlier work with the adoption of computer-assisted reporting, has been at the forefront of efforts to trace the increasing use of the Internet and other interactive media by journalists([Garrison, 1997a], [1997b]). He has documented, among other things, a steady rise in the use of online information sources by reporters and a strong perception that such sources can be valuable journalistic tools.

Studies such as these provide solid data from within the newsroom, involving changes in journalists' use of and attitudes toward new communication technology, on which to continue building. More explicitly theoretical approaches would enable researchers to draw connections with the diffusion of other innovations, particularly within a fairly narrowly defined social system such as that created by journalism professionals. Studies

such as those cited above indicate that the use and acceptance of online media are spreading, but we don't have a clear picture of just how that process is taking place. Specific aspects of diffusion theory raise a number of questions that have not yet been addressed. For example, innovations likely to gain a more rapid acceptance are those perceived as having a high relative advantage, or as being better than the idea they supersede, and as being highly compatible with the existing values of potential adopters. What are the perceived advantages of online information sources over more traditional news-gathering methods? How do such sources mesh with the value that journalists continue to place on investigating government claims -- or on avoiding stories with unverified content, a media role deemed "extremely important" by almost half the journalists in Weaver and Wilhoit's [(1996)] latest study? The role of opinion leaders, individuals within a social system who provide informal information and advice about innovations to others within the system, also raises intriguing questions. Who are the people within the newsroom whom others will follow? And what gives them the social status that marks them as leaders in this area? Are they the same people seen as leaders in other facets of newsroom life, or do different opinion leaders emerge for technological innovations? For instance, the investigative reporters who are already at the top of the newsroom food chain may now be winning prizes for stories based on online sources, stimulating interest in other reporters seeking to advance. Or leaders may simply emerge as random individuals, perhaps caught up in the diffusion of computer-based media outside the newsroom, become excited and spread the word among their colleagues. Or maybe the opinion leaders are journalists at other media outlets, such as the ones that serve as either real or ideal destinations for large numbers of working professionals: "If it's good enough for The New York Times, it's good enough for me." What role, if any, do reports carried in trade journals play? The answers to such questions are not just of academic interest; they have significant implications for managers seeking to encourage adoption of computer-based tools.

These are examples of diffusion-related questions to ask in looking within the newsroom at journalists' use of interactive media to carry out traditional functions, primarily reporting. But journalists are beginning to use interactive media not only to gather information but also to disseminate it. There are numerous questions to be raised relating to diffusion of the idea of online media services as acceptable places for journalists to work. Indications are that online journalists have not yet achieved parity with their traditional peers. Some report being denied equal access to news events [(Quick, 1997)]. Pay and benefits for a media outlet's online staff vary widely, but online staffers often are young and relatively inexperienced, and their compensation reflects that status. How to treat them is a subject of ongoing debate among union and management negotiators in many newsrooms [("On-Line: Guild Work, Guild Jurisdiction," 1996)]. In general, traditional journalists have seemed reluctant, in these early years, to consider online counterparts as peers. Among the questions that spring from this situation are:

* How does acceptance of the idea of working in a non-traditional environment diffuse within the traditional newsroom? Again, who are the opinion leaders, and what factors are significant in the process? Right now is an ideal time to launch studies in this because right now is when the process is occurring ... or not. Are online media going to become separate entities, as television became separate from print? Or will they become arms of existing media forms?

* Can the innovation-decision process for new or current journalists considering a career in interactive media be identified? Rogers [(1995)] lists a series of steps, starting with knowledge and ending with implementation and confirmation. What do these steps look like for journalists faced with a new wrinkle on their jobs and professional roles? What factors might affect where an individual is in this adoption sequence?

* Another key element of diffusion theory is the idea of reinvention, or the degree to which an innovation is modified as it is adopted and implemented. What sorts of reinventions -- of roles, of content, of values, of practices -- are taking place as journalists become involved in online delivery of information?

* Ultimately, Rogers suggests, the components involved in the diffusion process come down to an evaluation of consequences: What will happen if an innovation is adopted or rejected? Today's journalists are, consciously or not, weighing that question in considering whether to become involved in online

media. A better understanding of the factors that go into that judgment may lead to a better understanding not just of tomorrow's media but of today's media, as well.

Such questions only scratch the surface of possibilities for applying diffusion theory to the exploration of how journalists and journalism are affected by interactive media. But even this brief overview raises questions that point to a third fruitful approach to studying the changing newsroom environment, drawing on a different body of work.

Gate keeping Theory examines one of the most enduring concepts in mass communication scholarship. Simply put, gate keeping is the process by which the billions of messages that are available in the world get cut down and transformed into the hundreds of messages that reach a given person on a given day.

World Wide Web has introduced journalists to new writing forms

1. Know Your Audience
Write and edit with online readers' needs and habits in mind. Web usability studies show that readers tend to skim over sites rather than read them intently. They also tend to be more proactive than print readers or TV viewers, hunting for information rather than passively taking in what you present to them. Think about your target audience. Because your readers are getting their news online, chances are they are more interested in Internet-related stories than TV viewers or newspaper readers, so it may make sense to put greater emphasis on such stories. Also, your site potentially has a global reach, so consider whether you want to make it understandable to local, national or international audience, and write and edit with that in mind.

2. Think First — And Think Different
Before you start reporting and writing a story, think about what the best ways are to tell the story, whether through audio, video, clickable graphics, text, links, etc. – or some combination. Collaborate with audio, video and interactive producers. Develop a plan and let that guide you throughout the news gathering and production process, rather than just reporting a story and then adding various elements later as an afterthought. Also, look for stories that lend themselves to the Web -- stories that you can tell differently from or better than in any other medium.

3. Tailor Your News Gathering
Just as print and TV reporters interview differently because they are looking for different things, so must online journalists tailor their interviewing and information gathering specifically to their needs. Print reporters tend to look for information. TV reporters look for emotion on camera, sound bites and pictures to go with words. Online journalists must constantly think in terms of different elements and how they complement and supplement each other: Look for words to go with images, audio and video to go with words, data that will lend itself to interactive, etc… Remember that photos look better online when shot or cropped narrowly, and streaming video is easier to watch when backgrounds are plain and zooming minimal. Tape interviews whenever possible in case someone says that would make a powerful clip. Look for personalities who could be interesting chat guests. And always keep an eye out for information that can be conveyed more effectively using interactive tools.

4. Write Lively And Tight
Writing for the Web should be a cross between broadcast and print -- tighter and punchier than print, but more literate and detailed than broadcast writing. Write actively, not passively. Good broadcast writing uses primarily tight, simple declarative sentences and sticks to one idea per sentence. It avoids the long clauses and passive writing of print. Every expressed idea flows logically into the next. Using these concepts in online writing makes the writing easier to understand and better holds readers attention. Strive for lively prose, leaning on strong verbs and sharp nouns. Inject your writing with a distinctive voice to help differentiate it from the multitude of content on the web. Use humor. Try writing in a breezy style or with attitude. Conversational styles work particularly well on the Web. Online audiences are more accepting of unconventional writing styles. At the same time, don't forget that the traditional rules of writing apply online. Unfortunately, writing quality is inconsistent throughout most online news sites. Stories suffer from passive verbs, run-on sentences, mixed metaphors and clichés. This is a result of fast-paced new gathering, short staffing and inexperienced journalists. This is also a big mistake. Readers notice sloppy writing and they don't forgive. They'll stop reading a story and they won't come back for more. Unlike local newspaper readers, online readers have options.

5. Explain
Don't let yourself get caught up in the 24/7 wire-service mentality and think all that matters in that you have the latest news as fast as possible. Readers rarely notice, or care who was first. People want to know not just what happened, but why it matters. And with all the information sources out there now, in the end

it will be the sites that explain the news the best that succeed. Write and edit all your stories with this in mind.

6. Never Bury The Lead

You can't afford to bury the lead online because if you do, few readers will get to it. When writing online, it's essential to tell the reader quickly what the story is about and why they should keep reading -- or else they won't. One solution is to use a "Model T" story structure. In this model, a story's lead – the horizontal line of the T -- summarizes the story and, ideally, tells why it matters. The lead doesn't need to give away the ending, just give someone a reason to read on. Then the rest of the story -- the vertical line of the T --can take the form of just about any structure: the writer can tell the story narratively; provide an anecdote and then follow with the rest of the story; jump from one to another, in a "stack of blocks" form; or simply continue into an inverted pyramid. This enables the writer to quickly telegraph the most important information -- and a reason to keep reading -- and yet still retain the freedom to write the story in the way he or she wants to.

7. Don't Pile On

Another story structure that has evolved online, mostly by accident, is what I call The Pile-On. A common problem with online writing occurs in breaking news stories. In an effort to seem as current as possible, sites will often put the latest development in a story at the top -- no matter how incremental the development. Then, they'll pile the next development on the top, and the next -- creating an ugly mish-mash of a story that makes sense only to someone who has been following the story closely all day. Unfortunately, the only people who are usually doing so are the journalists. Few readers visit a site more than once a day. Remember this when updating stories, and always keep the most important news in the lead.

8. Short But Sweet

Most stories online are too long for a Web audience, and I imagine few readers finish them. Roy Peter Clark has written a wonderful essay arguing that any story can be told in 800 words -- a good guideline for online writing. But let that be a guideline, not a rule. Readers will stick with longer stories online if there is a compelling reason for a story to be that long -- and if it continues to captivate their attention. Making readers scroll to get to the rest of a story is generally preferable to making them click. Online news users do scroll. If someone has clicked to get to a page, it¹s generally because they want to read the story, and thus chances are high that they will. The Poynter eyetrack study showed that about 75 percent of article text was read online -- far more than in print, where 20 to 25 percent of an article's text gets read, on average. Print readers have less vested in any given story, because they haven¹t done anything proactive to get the article.

9. Break It Up

Larger blocks of text make reading on screens difficult, and you're more likely to lose readers. Using more subheads and bullets to separate text and ideas helps. Writing should be snappy and fast to read. Keep paragraphs and sentences short. Like this.   Try reading sentences out loud to see if they're too long. You should be able to read an entire sentence without pausing for a breath. It also helps to extract information into charts, tables, bulleted lists and interactive graphics. Even a simple box with a definition or summary can help break up text and convey information in an easy-to-read format.

10. Eliminate The Guesswork

People often don't know what they're going to get when they click on stuff. And people are not going to click on something unless they know what they're getting. When they click on something that's not worth it, they lose trust in you as a source and are less likely to come back and click on things in the future. So make sure you tell people what they are going to get. Studies show online news user's preferred straightforward headlines to funny or cut ones. Cute headlines didn't do as good a job of quickly explaining what a story is about and thus discouraged online users from clicking through.

11. Do Not Fear The Link

Don't be afraid to link. Many sites have a paranoid fear that if they include links to other sites, readers will surf away and never return. Not true! People prefer to go to sites that do a good job of compiling click-worthy links -- witness Yahoo's success. If people know they can trust your site, they will come back for more. At the same time, journalists have a responsibility to apply news judgment and editorial standards to the links they choose. Avoid linking to sites with blatantly false information or offensive content. Select links that enhance the value of the story by helping readers get additional information from the people behind the news. And of course, link to related stories on your site, past and present. This is truly one of the advantages of the Web. By linking to other stories to provide context and background, writers have more freedom to focus on the news of the day without bogging stories down with old information.

12. Take risks...but remember the basics
Online journalism is a new and evolving industry and we are writing the rules as we go along. Challenge yourself and your colleagues to question the way things are being done and to stretch the boundaries of what can be done. There are no rules, only ideas. Take risks. Try something different.
But don't forget the fundamentals of journalism. Facts still have to be double- and triple-checked; writing still needs to be sharp, lively and to the point; stories should include context; and ethical practices must be followed. Don't let the 24/7 speed trap and the new tools distract you from these basics. With so many alternative news sources now at everyone's fingertips thanks to the Web, it is now more important than ever that we stick to the fundamentals of journalism to produce news people can trust, because in the end that's what will keep people coming back for more.

Tips for Writing for the Web
Text Formatting

Short Paragraphs :> A 100-word paragraph looks pretty long on a Web page. Long paragraphs send a signal to the reader: This will require effort. The writer expected you to have a lot of spare time. Sit down and read awhile. Short paragraphs send a different message: I'm easy! This won't take long at all! Read me!

Headings > The heading at the top of the page should make absolutely clear what the page contains or concerns. The text under the heading must not repeat the heading information (see redundancy, below right).

Subheadings > If the page text exceeds 300 words, subheadings will help the reader scan the page efficiently and happily.

Boldface > Depending on the content, words or phrases in boldface can help readers find what they want. Combining boldface and subheadings could lead to visual noise, so do not overdo it. Combining links and boldface text in the same paragraph could have the same unsightly result.

Lists > Numbered, bulleted or other indented lists help the reader make sense of the information on the page. In many print contexts, lists would look ugly and thus are not used. On Web pages, lists work well in almost all contexts. Like paragraphs, lists appeal more to the reader when they are short.

Text Content
Brevity > Write tight. Omit all unnecessary words.*
Sentence Structure > be straightforward. While a meandering introductory clause may seem like a good idea to you, the reader might stop reading -- before she gets to the heart of your sentence.

Active Verbs > It is easy to write with passive verbs (am, is, are, has, have). Using active verbs makes the writer work harder -- but the reader benefits. The writer also benefits, because the reader stays interested. Passive verbs bore readers. Bored readers leave.

Say What You Mean > Try saying it out loud before you write it. We tend to speak more directly than we write. We get to the point more quickly, too, when we can see the listener's eyes glazing over.
Redundancy > Reading the same information twice wastes a person's time

Links

What They Say > Link text should not break any of the rules given for text (at left). A link must give the reader a reasonable expectation of what she will get when she clicks. Linked phrases such as "click here" or "Web page" do not provide helpful information.

What They Do > A link that does not open something or take the user to a new Web page seems to be a broken link. When the link will take the user to a different place on the same page, or open a media player, give the user a cue.

How They Look > A long phrase (more than about five words) can be hard to read, or just ugly, when underlined and/or in a highlight color. Links that are not underlined and do not appear in a different color from the surrounding text are almost impossible for the users to see.

Introduction
Cyberspace belongs to readers, not writers. The journalist who carefully crafts a story with a lead, middle and ending is at the mercy of World Wide Web users who resemble TV couch potatoes with a mouse for a remote control. With a world at their fingertips, readers can link to another Web site in an instant before they even access the story. That doesn't differ from print readers who scan headlines. But news stories on the Web offer more diversions and problems. With a multitude of links to others sites and technology that causes poor readability and slow download time, getting and keeping readers' attention is more difficult online than in print.
How then should we write news for the Web?
Should we write inverted pyramid stories, with the most important information at the top of the story?
Should we write in narrative form like a fiction story with a plot that unfolds from beginning to end?
Should we organize stories in chunks for readers to click on or in continuous screens they can scroll?
Or should we create new forms of storytelling for the Web?
This study will explore several forms of writing online news. It features interviews with media leaders, research from studies, models for news, and resources for writing on the Web.

Nonlinear Form
Linear and nonlinear defined
The distinguishing characteristic of the World Wide Web is hypertext, clickable links to other information on the same or other Web pages. Hypermedia adds audio, visual and video. The result is nonlinear information, a format that allows users to read and access information in any order they choose. In contrast, linear information is presented in a set order from beginning to end like a straight line. If readers want to understand the story, they must read it in the order it is presented.

Useful links needed
George Landow, a Brown University professor and scholar of hypermedia, says hyperlinks must be useful, coherent and purposeful. "When users follow links and encounter materials that do not appear to possess a significant relation to the document from which the link pathway originated, they feel confused and resentful," he writes in Hypermedia and Literary Studies.

Reader/writer relationship changing
Using these principles, an online news story becomes more like a Sunday package with related sidebars than a simple news story. Whether the story contains links to other Web pages or links to topics within the same page, nonlinear structure changes the writer- reader relationship. The writer relinquishes control over the information to the reader.   Sven Birkerts, author of The Gutenberg Elegies: The Fate of Reading in an Electronic Age, says hypertext "changes the entire system of power upon which the literary

experience has been predicated." Once a reader is enabled to collaborate, participate or in any way engage the text as an empowered player who has some say in the outcome of the game, the core assumptions of reading are called into question," Birkerts writes. "The imagination is liberated from the constraints of being guided at every step by the author." But giving the reader freedom of choice in paths to follow can disrupt comprehension. Birkerts describes his experience of reading a hypertext fiction story created in chunks and links to different sections as a constant interruption: "The reading surface was fractured, rendered collage-like by the appearance of starred keywords and suddenly materialized menu boxes."

Shovel ware persists
Birkerts would have less trouble reading online news sites. The majority of them still feature the same linear stories that were published in print. That "repurposing" of material from print to the Web is called"shovelware." The term carries a negative connotation. Elizabeth Osder, former content development editor for the online New York Times, says readers of The New York Times want the newspaper's content online. "I don't think there is anything wrong with a Web site that is straight shovel ware.''A good site should be useful to people and should serve its audience," Osder said at a journalism educators' conference.

Original content increasing
But original content developed for newspaper Web sites is increasing. A study, "Media I in Cyberspace," by Steven Ross, an associate professor at Columbia University, and Don Middleberg, chairman and CEO of Middleberg + Associates, conducted in 1997, says that 20 percent of newspapers with Web sites report that at least half of the content on their sites is original material designed for the Web compared to only 7 percent the previous year.

Medium is evolving
Andy Beers, executive producer of MSNBC news, says online news sites will continue to develop more content just for the Web.   "I think if I were going to pick the biggest mistake we made, we spent too much time trying to reinvent the newspaper online," Beers says. "What you are starting to see more is the evolution of the medium as a unique way of telling a story. There is a unique way of allowing people to control information."   Beers cites a recent election as an example of how the Web empowered people to get the information they wanted when they wanted it. People could log into the Web site and search for election results they wanted instead of waiting for the newspaper to print them
or listening to a broadcast until specific elections were mentioned. Beers says online stories must be constructed in layers that offer readers different levels of information. Some readers want briefs, while others want full stories, multimedia, or in-depth information, he says.

Significance for journalists
"This new media has some really exciting and useful capabilities for people," Beers says. "What does this all mean for journalists? I think that all of us carry around a lot of baggage based on a kind of entitlement that we decide what people need. I think the Internet is going to break through that concept and force us to examine what journalism is. "People feel much empowered by the Web," he says. "We have to learn to use those capabilities that can change the way they get information. We're involving the audience and allowing them to be in control. That's a very powerful thing."

Interactivity
Interactivity is what sets the Web apart from print news. Like hypertext, it is another way to empower readers. Polls, quizzes, and feedback questions are a few ways to involve readers. They have become an integral part of online news writing. Searchable databases are another form of interactivity ideally suited to Web stories. The combined online Web site of the Philadelphia Inquirer and Philadelphia Daily News provides readers with a database of more than 10,000 physicians and other health topics that they can search. Other databases such as education packages allow readers to search for test scores and statistical information in their own school districts. Howard Witt, associate managing editor for interactive news at the Chicago Tribune, says Web readers want information that is relative to them and they want to interact with it.   Witt referred to a package of homicide stories that allowed users to click on a map and find out

how many homicides occurred in their neighborhoods. But for Witt, the defining moment of writing on the Web came not from his staff, but from readers. When famed columnist Mike Royko died in 1997, within a week 700 readers posted messages to express their grief. "This is where I understood the power of this medium for the first time," Witt says. "If he had died five years ago, some people might simply have written a letter to the editor. This (online message board) allows us to let people grieve together and share something like this. This is a pinnacle of what interactivity means."

Writing Process
- Topics in this section
- Planning the story
- Gathering information
- Organizing information
- Writing the story
- Rewriting

Writing in nonlinear form requires a different way of planning, organizing and crafting a story. In any medium, a writing process involves planning, gathering, organizing, and writing and rewriting. But online news requires some elements unique to writing for the Web.

Planning the story
In a major online media site such as CNN, planning involves a team of a writer, editor, and technical staff - including a multimedia specialist. Jeff Garrard, executive producer of CNN Interactive, says the planning process begins by listing the stories to be covered on a laminated white board like an old-fashioned blackboard. "It doesn't crash," he quips.   Then a writer and associate producer team up. The writer sifts through wires, CNN reports and video feeds. The associate producer tracks down multimedia elements and consults with a multimedia designer. A Web editor then searches the Internet for appropriate links. A writer for a small online news site or even a major online newspaper may have to consider those elements without such a support team. Some questions to consider for planning:
Does the background for the story lend itself to links to separate Web pages?
Should background or related elements be presented as a timeline or visually instead of text?
Should multimedia elements, such as audio or video, accompany the story?
Does the story lend itself to discussion questions or other interactive elements that will involve readers?
What visual elements does the story need: maps, photos, etc.?
Who needs to be involved early in the process: Web editors, designers, multimedia specialists?
- Back to topics menu
- Gathering Information

Reporting for the Web involves gathering material for brief and in-depth presentation. Even if a site doesn't feature audio and video now, it probably will in the future. Robin Palley, former Web editor for the online Philadelphia Inquirer and Philadelphia Daily News, says writing for the Web has to start with reporting for the online site.   Palley says print reporters should take tape recorders and computer disks to a news event. They should tape interviews for sound bites and ask if a full text of a speech or a complete list of science fair winners is available in computer form to post on the Web, she says. Reporters also need to gather information to update the story or plan the next step. A follow-up story could be posted on the Web in an hour rather then waiting for the next broadcast or print edition. Every news Web site becomes more like the all-day television or online news sites of CNN Interactive and MSNBC. Competition of online news sites and the need to be current are forcing a return to the days when newspapers were published all day long, Palley says. "I think the time will come when we will need a rewrite desk."

- Back to topics menu
- Organizing Information
- Nonlinear stories pose enormous organizational challenges.

Should they be written in chunks linked to other Web pages?

Should they be written in one long screen with or without links to internal topics?

Before writers craft the story, they should outline. In online storytelling the word "outline" has been replaced by a more palatable term: storyboarding. And this is a crucial step in online writing. A storyboard is a diagram like an organizational chart. Each chunk of the story is a box on the chart, including audio and visual elements. The storyboard is a concept borrowed from film or cartooning where each panel of the cartoon is a box in the diagram showing the sequence. Related Web pages for background and other elements are parts of the storyboard.

Dividing the story into subtopics is another way to envision its parts, even if it will be

presented as one complete story. Leah Gentry, editorial director of the online Los Angeles Times, describes the nonlinear storytelling process as deconstructing and reconstructing a story. She suggests: Deconstruct: Divide your story into component pieces. Look for similarities and relationships between the pieces. Group those that are similar. Reconstruct: Then use a storyboard to diagram the relationships between the groupings. It doesn't have to be fancy, Gentry says. "Mostly I scribble on paper. It becomes a blueprint for your site."   "Every story has a micro element, the part of the story that must be linear," she says. "For example, a man walks into a room and is shot. The man must have walked into the room before he can be hit with the bullet, so that sentence is the micro story, a linear part that explains what the story is about. It could be a sentence or paragraph similar to a nut graph or several paragraphs." The macro story is the rest of it -- contextual and related information -- in an order the reader can choose. Gentry say a story also works using a point of view strategy. A story could contain a cast of characters, and the story could be told several times filtered through the eyes of each character.

Not all parts of the story have to be text, Gentry says. Images or multimedia elements can

also tell the story. But she warns against using technology for technology's sake. "It must further storytelling." she says. "Anything that doesn't is just noise and it gets in

the way of information." A storyboard might look like this:

Writing the Story

Good writing still begets good reading. Style should be dictated by content. Usability studies suggest the inverted pyramid to facilitate scanners. But if writers are trying to entice reading, other styles must be explored. Experiments with writing on the Web involve many fiction sites, and fiction is not written in inverted pyramid style. The Web offers a chance to be as eclectic in writing styles as it is in its reading population. One size does not fit all! Here are some tips that can be used for any style of online writing: Write a discussion question first, whether you will use it or not. That will help you create your focus and insert a context that will relate to readers. You can move the discussion question to the end later. Write a nut graph at the top of your story as a teaser. This will help you put your focus high in the story. This graph can be used as a tool and removed later if it doesn't serve as a subhead.

Use short sentences. Avoid connecting sentences with conjunctions.

Use short paragraphs.

Write topic subheads.

Use lists to help the reader scan the page.

Write in chunks of information that can be split into logical subtopics and related nonlinear parts.   If stories are presented on different Web pages, treat each chunk as a separate story like a sidebar. Restate the context. Use the blocking technique when possible, especially in a basic news story. If a story has three or more sources, try to structure the story so each source is in one block and does not have to be used again. See next point. Avoid the journalistic convention of using last-name only on second reference. When readers scroll different screens or click to another chunk on a separate Web page, the second reference is confusing. Ignore journalistic taboos of writing questions for leads or transitions. They work well on the Web, especially at the end of chunks.   Try cliffhanger endings if the story will link to another screen.

Rewriting

The Web has unlimited space, but readers don't have unlimited attention. Cut every extra word, conjunction and unnecessary adjective. Count the number of lines in each section of your story. A computer screen generally contains 29 lines of type. Use this as a guide to see where subheads might be placed. Scan the story. Does your eye focus on subtopics or other points of entry? If not, create them.

Check your endings and transitions to new screens. Does the story lure readers to continue to another screen or Web page?

Eye movement study
Before you decide how to write a story for the Web, it helps to understand how people read online." They don't," says Jakob Nielsen, a consultant and former Sun Microsystems distinguished engineer. He has conducted several studies about reading and writing on the Web. He says readers are scanners in search of information. A leader in Web usability research, Nielsen says reading on the Web is 25 percent more difficult because of screen resolution. That doesn't mean writing should be 25 percent shorter, he writes in a bimonthly column on the Sun Microsystems Web site. It should be 50 percent shorter, he says. His advice: Writing for the Web should be short, simple and written in inverted pyramid style. But major news stories in the past two years indicate that online reading is increasing.   After the death of Princess Diana and during the scandal involving President Clinton and Monica Lewinsky, a former White House intern, Web usage in news sites soared. Whether users scanned or read thoroughly is still unknown. But studies by Nielsen and other researchers provide valuable insights.

Writing for the Web study
Nielsen conducted three studies from 1994 to 1997 with fellow researcher John Morkes.   "Our studies suggest that current Web writing often does not support users in achieving **their** main goal: to find useful information as quickly as possible," they wrote. "We have come to realize that content is king in the user's mind," they concluded. "When a page comes up, users focus their attention on the center of the window where they read the body text before they bother looking over header bars or other navigational elements."
In their study, "How to write for the Web," conducted in 1997, they tested four models of writing. Promotional writing using adjectives and "marketese" found on many commercial sites   concise text with half the word count of the promotional model   scannable layout, using bullets objective language, eliminating adjectives.The concise text was the most popular, followed by the scannable model with bullets and then the objective language model. None of the test subjects chose the promotional writing model, which impaired credibility. Based on this study, Nielsen and Morkes suggest these techniques for writing scannable text on the Web:
Highlighted keywords
Meaningful subheads (not clever ones)
Bulleted lists (They help scanners move through information.)
One idea per paragraph
Inverted pyramid style
Half the word count (or less) than conventional writing.
The last study was one of the first to test different writing styles, and its results are significant. But it must be viewed with caution for online news writing. The 41 users in the study were tested for their ease of searching for information, recall, and subjective satisfaction, not for reading news. The test only involved different versions of a story about travel attractions in Nebraska. And, as the researchers note, content is still a major factor in readability. Other news writing styles can be as effective, as this Poynter report will show.

Formula to Measure Readability
Another study by User Interface Engineering, a Massachusetts consulting firm, tested nine Web sites for a variety of design factors influencing ease of use. As part of the study, Jared M. Spool and other researchers used formulas that calculate readability, such as the Gunning Fog Index. This tool measures readability based on the average number of words, sentences and syllables.
The researchers found that Web users find information better in online text that contains fewer conjunctions and lacks standard grammatical structures. The study presumed that users were skimming text in search of information, not reading it thoroughly. They found that writing for the Web may require shorter sentences with simpler words.
Embedded links surrounded by text were another deterrent to readability. The researchers found that links contained within a sentence make it harder for readers to find information. Readers who skim tend

to look for links. If links are buried inside text, they slow the readers' progress and are more difficult to understand, the study says.

Clicking vs. scrolling
In early studies conducted by researchers Jakob Nielsen and John Morkes, the majority of users preferred to click rather than scroll below one screen to get information. In their 1997 study on writing for the Web, they found that readers are becoming more receptive to scrolling past one screen if the content interests them. My own studies with journalism students for the past two years revealed similar findings. Five unscientific surveys showed that in 1997 more students wanted to click through screens than scroll. In the most recent survey conducted in 1999, students were evenly divided among the clickers or scrollers. In all the experiments, almost all the students said they scanned when they read text on the Web instead of reading stories thoroughly. Their comments were more revealing. Those who favored chunks of text with links to click to the next part:
"I seem to lose my place when I scroll."
"Clicking is a more active thing. It seems more engaged."
"Scrolling tires your eyes because you have to pay attention to the moving lines in order not to scroll too far." Those who favored scrolling:
"I hate waiting for the next page to load."
"I'm a scroller because I like to have everything on one page, and it is easy to move up and down with the scroll. I like to click when the subject is different."
"In case I need to reread a little above, it's still on the screen. I can take it at my own speed, and it's easier to keep my place."
If there is any conclusion for writers on the Web, it is that if the content is worth reading,
Web users will click or scroll to get it. But the majority will scan it and print it out if they want thorough readability.

Eye Movement Study
In the early 1990s, The Poynter Institute for Media Studies conducted scientific tests by using eye-tracking equipment to see how people read newspapers. The study, Eyes on the News, by Mario Garcia and Pegie Stark Adam, also concluded that most readers are scanners. Although it was primarily aimed at testing the impact of color and graphics in newspapers, the study found that only 25 percent of the people tested began reading the text and about 12 percent actually read stories thoroughly. These findings for print readers are even more significant for online readers.
Garcia, author of Redesigning Print for the Web, now concentrates on consulting for online news sites. The Web is obviously ideal for scanners, he says. The average time spent reading on the Web is seven minutes compared to 20 minutes for newspapers.
 "People who use it are highly educated," he says. "They want a lot of information. All the evidence from focus groups shows that word links tend to be more effective than icons in making people click. Good writing is crucial. We need headlines that entice you to click. We are going to need the best word people in the world. The art of writing is back."

Teaser Study
- Topics in this section
- Teaser study overall results
- Summary vs. broadcast-style
- Repetition of headlines, subheads and leads
- Comparing print and online reading patterns
- Conclusion

Headlines and summaries that introduce Web stories are the first step in enticing readers. But summary teasers often tell so much about the story, they give the reader little reason to click into it.   If the reader does click, repetition awaits because most subheads on the main page merely duplicate the lead in the story. If most Web readers are scanners and we are competing for their average of seven minutes of online reading time, should we ask readers to read the same information two or three times? Or is the

repetition of summaries and leads helpful to Web readers so they know they have accessed the right story?

Teaser study

An unscientific study of the affect of writing styles for Web headlines, subhead and leads on readability revealed conflicting results. Although the majority of respondents in the study said it bored them to read leads that had been repeated in headlines and subheads, the repetition did not affect whether or not they would read the story. Nor did the style. content was the major determinant. The study of 52 journalism students, ranging in age from 20 to 50, tested four factors: Summary versus broadcast-style teaser subheads: Which were more effective in enticing users to click into a story? Students chose broadcast-style "stay-tuned" teasers over   inverted pyramid-summary subheads in four out of five examples, but they said they preferred summary style when scanning the Web. Their comments: "Content would be a major factor. If I'm interested in the story, it wouldn't matter if it were a summary or a teaser."

"I like summaries better. There's less chance for misreading the facts. It also cuts to the

Chase. I pay for online time. Cut to the chase and don't be coy."

"I like teasers because they entice you. It makes me want to read on. But when I don't

have time to read the whole article, I like summaries."

Impact of repetitious headlines and subheads on readability of leads:

53 percent said repetition made no difference whether they would read the story.

18 percent said repetition helped their comprehension.

29 percent said repetition bored them.

Many students commented that they wanted headlines and subheads to be brief – not several paragraphs that would be repeated in the story. However, 46 percent said they often skip reading the lead in online stories if the subhead repeats it, and 29 percent said they sometimes skip reading the lead if it is repetitious. The percentages were similar for skimming or skipping repetitious leads in print. Their comments:

"I like, or don't mind, a repetitious headlines, subhead and lead if not too much of the

story is given before you reach 'click here' for full story. If three paragraphs are given, then I get annoyed because I'm into the story; one paragraph is OK.   "It helps to hammer home the point of the story. And since I don't read stories on the Web thoroughly, it helps me get as much information as quickly as possible." "I hate repetition. It's a waste of my time."

Comparison of print and online reading patterns: Did users read print stories that interested them more thoroughly than online news stories. Almost all the respondents show similar patterns for print and online news reading.

Always read print news stories of interest thoroughly -- 21 percent compared to 11 percent online. Often read print news of interest thoroughly -- 62 percent compared to 60 percent online. Most of these students who answered often for print responded the same for online.

Sometimes -- 12 percent for print news stories, 25 percent for online. Age made no difference in reading patterns. Undergraduate students in their 20s had the same patterns for print and online as did graduate students in their 30s, 40s and 50s.

Conclusion

Content is the main factor in enticing readers to click. Shorter subheads work better than detailed ones with several paragraphs. Subheads that don't repeat the leads are preferable because readers will skip repetitious leads. This unscientific survey should only be viewed as a starting point to consider whether summary or teaser subheads and repetition should be used. A more thorough scientific study would be needed to derive definitive conclusions. Story Forms 1

Topics in this section
- Overview: Coast to coast innovation
- A new generation of Web users
- Scanners' models
- Screen-size chunk model
- Overview

Eric Eaton is a designer for the Wired News site. "I try to make sure everything is pure information," Eaton says. "I would like people to get everything from the top-level headlines. There's always more for people who want the rest." Add Eaton to proponents of the inverted pyramid form.

Two desks away Taylor is experimenting with high-tech ways of producing stories with graphics and motion. "Everything we know about online is different from print," he says.

This 20-something Web designer represents a new generation. He even shortened his name to a one-word click. He prefers Web stories in small chunks of graphically charged information that he can choose in an order he pleases. He can click from one Web page to another without losing a mental nanosecond of comprehension.

"You grew up in a world of three channels on TV," he tells this 50-something writer. "I grew up in a world of 80 channels." He also grew up with video games, so multitasking - - switching from one task to another -- is just an extension of his childhood skills. Add Taylor to proponents of nonlinear chunks of writing.

In the middle of the country, John Caserta, Chicago Tribune's online Web designer, works on innovative storytelling packages. Some tell a story with a screen of short text and photos. Others, like a series on classical music, depend on multimedia.

"Design is communication of information in a clear way," Caserta says. "Text is not always the best way to communicate it. I think the traditional story should be questioned."Add Caserta to proponents of new writing models for the Web.

And on the East Coast, a team of designers, photographers, writers and editors for The Philadelphia Inquirer Web site labored over a 29-part narrative serial about the battle of Mogadishu. The series features multimedia and compelling writing like a novel with chapter endings in cliffhangers.

A new generation of Web users
From coast to coast, online news sites are experimenting with new ways of storytelling on the Web. And around the globe, the next generation of Web readers and writers is already rocketing through cyberspace to create inventive ways of conveying information.

A million dollar-grant by the Advanced Network & Services in a "Think Quest" program for high school students throughout the world reveals their ability to create Web packages that would humble most American online newspaper writers and designers. If most Web readers are only scanners now, the generation that is growing up with the Web could well become serious readers. To limit our vision of writing forms for a current generation of scanners is short-sighted. So which form is best? All of the above: the inverted pyramid for some hard news stories, serial narrative for others, screen-size chunks with links to different Web pages if stories have logical breaks and scrolling stories for those that need a more linear presentation for comprehension. Different forms for different functions.

Howard Witt, associate managing editor for interactive news at the Chicago Tribune, says these innovative storytelling forms for the Web take a lot of time to produce. He says they work best on Web specials that have "shelf life" but aren't practical for daily news. But the models discussed here can be adapted for daily news stories on the Web with little more than a few copyediting adjustments and some nonlinear thinking. Other models to be discussed will focus mostly on the writing styles rather than the interactive features and technical design.

Scanners' Models
A study of 50 metropolitan daily online newspapers reveals that the majority present text in long strips of black rolls resembling toilet paper. No subheads. No bullets. The lessons learned in print design have been ignored online. In many online newspapers, the text spans the entire width of the screen, creating a torturous task for eye movement. A few, however, offer models that adhere to readability for scanners as well as thorough readers without requiring major adjustments in writing or design.

Star Tribune online model: This Minneapolis online site uses topic subheads on most stories, unless they are very short, and bullets when appropriate for the story. The online newspaper also places links to related items in a column on the side of the story at the top of the page and again near the end, making nonlinear navigation easy for readers without
Interrupting the flow of the story.

American Journalism Review: Eric Meyer, a University of Illinois journalism professor and online consultant for his company, Newslink, has created an even simpler model for scanners in the American Journalism Review site he developed. He highlights the first few words in a paragraph in boldface type periodically throughout the story to serve the same purpose as topic subheads.

CNN model: CNN uses topic subheads on almost all stories but also frequently uses another technique for nonlinear readers: links at the top of the story that connect to the subheads on the same page. Readers can scan information within the story or read in linear form without clicking on the topics.

MSNBC model: This online site offers its lead in larger type to serve the same purpose as a summary subhead. Then the reader can click to read the rest of the story on the same page or click on the links placed under the summary to related stories and resources. This site also regularly uses topic subheads throughout the story. No attempt was made to test if one model is better than another. All of these forms follow readability guidelines supported by studies that show subheads and bullets help scanners move through copy. And all will enhance readability of text regardless of inverted pyramid or narrative writing style.

Screen-size chunk models
Writing in screen-size chunks may facilitate scanners, but most of the sites using this technique are relying more on design than suitability of content to this form. When media critic Jon Katz wrote an online column for Hotwired, it was presented in screen-size chunks. But the columns were still linear reading experiences. You couldn't skip to screen 6 and still understand the column. The chunks often ended at no relevant break in content. The design, with a watermark on each screen to tell readers which one they are reading, is an innovative design, but it is not a new form of writing. However, Hotwired editors say Katz's column was so popular that readers would click or scroll to follow his diatribes against the media. Katz has since become a columnist for The Freedom Forum, but his Hotwired columns are still online. For screen-size chunks to offer readers choices of nonlinear parts of the story, the pieces have to have coherent breaks. Few daily news stories lend themselves to this treatment.   Since research is showing that readers will scroll content that interests them, chunk writing is often design for design's sake.

Related sites in this section
These links will open in a separate window while this site remains on your screen so you can return to it at will.

- Star Tribune
- American Journalism Review
- CNN
- MSNBC
- Think Quest $1 million contest winners
- Jon Katz's Hotwired columns
- Conclusion

Online newspapers are much maligned by media critics, but many of them are producing excellent packages for the Web. However, on a daily basis with limited online staffs, Web newspapers are merely duplicating their print news stories with little regard to online readability. By employing minor adjustments suggested in usability studies cited in this report, online news sites could make the text more readable for users, who are still primarily scanners on the Web.

The major recommendations from this study are:
Provide interesting, useful content.
Keep online news stories short.
Use subheads to break up type.
Keep subheads on main pages short and informative to entice readers.
Use bulleted lists when applicable to the story.
Avoid embedded links in stories.
Use teaser or summary headlines that don't repeat the lead, especially when the news story features an anecdotal lead. Use nonlinear formats when they enhance the story. For a long, scrollable story, consider internal links targeted to topics on the same page. If the story has logical breaks that might be presented

as a short series or sidebars, consider screen-size chunks. Explore new writing styles such as the serial narrative. Train reporters to gather full text on disks, audio and searchable databases for online stories. Multimedia will soon become a regular feature of online all news sites.   Consider alternative forms of presenting information such as question-answer format or timelines for background. Confine text to tables of 350 to 450 pixels for ease of eye movement instead of spanning the entire screen. Add interactive elements -- feedback questions, quizzes, calculators and search capabilities -- that let readers figure how a budget story will affect them.

- Experiment.
- Resources

Nonlinear form

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Internet Chicago Tribune www.chicagotribune.com

The New York Times, www.nytimes.com

Writing Process

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Story Forms I

American Journalism Review www.ajr.org

CNN www.cnn.com

MSNBC www.msnbc.com

Think Quest $1 million contest winners

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Jon Katz's Hotwired columns

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Star Tribune www.startribune.co

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PLUM http://www.media.mit.edu/people/elo/plum.html About this study

Lesson 05
Ethics related to cyber medium

1- Accuracy:
Accuracy is the indispensable value in journalism and must not be compromised. Cyber journalists must deliver error-free content. They must ensure that their content is a verifiable representation of the news. They should never intentionally mislead those who depend upon them for information. They must be accurate with their target audiences. Sometimes it's OK to print information that they haven't confirmed with multiple sources.
Just make sure that you label it as such. Never ever publish information that you know not to be true.

2- Honesty:
Cyber journalists should be honest and fair in gathering, reporting and interpreting information. They must strive to keep news content free of special interests, inside or outside the news organization. They should embrace the value of transparency.

3- Honor Copyrights and never plagiarize:
They should value original thought and expression. Their work should be free from fraud and deception. -- That includes plagiarism and fabrication. We will attribute content and honor copyrights. It includes not just cutting and pasting whole articles, but copying photos, graphics, video and even large text excerpts from others and putting them on your web page as well. If you want to reference something on another website, link it instead. If you are concerned that the page you're linking to will disappear, give your readers the name of the publication that published the page, its date of publication and a short summary of its content. Just like news reporters used to reference other content before the Web.   ("In a Sept. 20 report, the Wall Street Journal reported....").

4- Identify and link to sources:
Cyber journalist should act honorably and ethically in dealing with news sources. He/she should Identify and link to sources, whenever feasible. The public should entitle to as much information as possible on sources' reliability. He/she should always question sources' motives before promising secrecy. Clarify conditions attached to any promise made in exchange for information.

5- Never distort the content of photos and videos:
Never distort the content of photos   without disclosing what has been changed or digitally alter photographs to mislead the audience. Image enhancement is only acceptable for technical clarity. Montage and photo illustrations should be label. Any attempt to confuse readers or misrepresent visual information is prohibited. In photographing news, do not stage or restructure events. Similarly, in editing video, do not insert words or splice together statements made at different times so as to suggest that they were uttered at the same time. Pieces of an interview or address generally should be presented in the order that they occurred. If an interview is presented in question-and answer format, the questions must be presented as they were asked. Reaction shots may not be altered after the fact. Staging is prohibited.

6- Distinguish factual information and commentary from advertising:
Cyber journalists should distinguish factual information and commentary from advertising and avoid hybrid or mixture that blurs the lines between the two.

7- Distinguish between advocacy, commentary and factual information:
Even advocacy writing and commentary should not misrepresent facts or context of the news event. So, Cyber journalist should strive to distinguish between advocacy, commentary and factual information.

8- Define and clearly Label, news and opinion:
Journalists and news organizations should understand the necessity of defining, and clearly labeling, news and opinion. In an open environment like the Web, consistency in presentation can help the reader see

clearly where the lines are drawn between news and opinion. Whenever journalists or organizations blur or blend those roles, they need to recognize the risk and consider the consequences.

9- Privacy:
Recognize that private people have a greater right to control information about themselves than do public officials and others who seek power, influence or attention. Only a dominant public need can justify interruption into anyone's privacy. Be sensitive when seeking or using interviews or photographs of those affected by tragedy or grief.

10- Balance/ Fairness:
Cyber journalists should create a balance by including all sides relevant to a news story and not take sides in news coverage. In covering controversial issues seek out intelligent, articulate views from all perspectives. Reporters should try genuinely to understand all points of view, rather than simply grab quick quotations to create an impression of balance.

11- Juveniles and victims of sex crimes
The Times does not identify the alleged victims of sex crimes or persons under 18 who are charged with crimes. Exceptions occasionally arise. The **decision** to name individuals in such cases rests with the editor or managing **editor** or an editor designated by them.

12- Criminal suspects
Cyber journalists should be careful about identifying juvenile suspects, victims of sex crimes and criminal suspects before the formal filing of charges. Cyber journalists should not identify suspects of criminal investigations who have not been charged or arrested. On occasion, the prominence of the suspect or the importance of the case will justify an Exception to this policy. In those instances, we must take great care that our sourcing is reliable and that law enforcement officials have a reasonable basis for considering the individual a suspect. If someone we have identified as a suspect ultimately is not charged, we should make that known in a follow-up story. Show Compassion for those who may be affected adversely by content.

13- Corrections:
Cyber Journalists should admit mistakes and correct them promptly and prominently. Correct what we get wrong as promptly and as clearly as possible. Establish systems to enable readers to alert us to mistakes and hold us accountable.

14- Principle of independence
Journalists should honor the principle of independence. They should avoid conflicts of interest or the appearance of conflicts that could put their ability to report or the credibility of their reporting or commentary at risk. They should not accept gifts or favors from people or entities they cover or over whom they might influence coverage. They should deny favored treatment to advertisers and special interests and resist their pressure to influence content.

15- Variations of tone and presentation in storytelling:
Variations of tone and presentation in storytelling are appropriate for reaching new audiences, but those variations should be consistent with the core editorial principles. Be clear on what you stand for, and honor it. These principles apply across all content and all platforms.

16- Linking decisions:
The linking decision   requires more specific considerations, including the relevance and reliability of the material that might be linked. Linking decisions should be based on serving the audience with as accurate and as complete a picture of the world as possible. Such decisions should not be restricted by commercial concerns about sending customers to others' sites. Linking is at the core of the Web experience, tying together content that allows readers to discover unexpected treasures and contextual information that can't comfortably fit into print and broadcast paradigms. But linking also comes with

challenges for media organizations. Until now, content was easily classified -- it was in the paper or it wasn't; it was broadcast on the air or it wasn't. Linking has created a netherworld in which media companies can point to sites without assuming responsibility for their veracity or standards. So how do media sites embrace linking without compromising their core values?

17- Principles & Values

• A link to an external site does not signify an endorsement of that site or its point of view. It is merely a signal to the reader that there may be content of interest on the destination site.
• Despite this, media sites should make it clear to their readers -- in the user agreement, site guidelines or via some other method -- that there's a difference in standards between the content that resides on their own site and the content they link to.
• Because of the spider-like nature of the Web, media sites can't be expected to apply even these relaxed standards to the content of sites that are linked to from sites we link to (the two-click rule).
• When readers put their own links to content in message boards, blog posts, etc., those links should be considered user-generated content and subject to the same controls.
• All media sites should to link to external sites. Linking off-site is an extension of your site's user experience and fosters a feeling of openness that's conducive to repeat visits. Trying to keep readers within just your site is a losing proposition.
• When linking, sites should not be forced into including links that support all sides of an issue. While news articles themselves should adhere to the traditional standards of fairness and accuracy, assuring balance in links run counters to the concept of providing only useful links to the reader.

Protocols

When deciding whether to links to other parts of your own site, ask yourself the following questions:
Is this content being linked to relevant to someone who would be reading/viewing this content?
When choosing whether to include a link to another site, ask yourself the following questions:
   Is the linked content relevant for someone who would be reading/viewing this content?
   Does the content being linked include content that could potentially fall within the area of defamation or libel?
   If the content being linked to falls outside the standards of your site, should you include notification of that fact (i.e., notify users of profanity, nudity, etc.)?
   Are you responsible when you link to something offensive?
   What about when that link links to something really offensive?

17- How do you decide when a user should be banned from publishing on your site?
This question raises a fundamental tension for journalists working in digital media: the need for a news organization to accommodate conflicting views at the same time it creates and maintains a community of civil discourse and debate. News organizations should create terms of service for users contributing content to the news organization's digital editions. Such terms cover such issues as the use of obscenity, personal attacks, etc. in material published by non-staffers. Publishers should also be clear about the consequences for violating terms of service, e.g. immediate banning from further posting, suspension, etc.

Ethics and Credibility in Online Journalism

Introduction

Ethics and Credibility in Online Journalism The etymology of journalism, from the Latin diurnalis, suggests a daily account or record. The term has come to mean the collection and editing of news for presentation via one or more forms of media. Intraday print issues and hourly broadcasts in the twentieth century distanced the practice from its Latin root. Nearly instantaneous transmission and updates through new electronic media forms further amplifies this divergence. When print was the only medium available to the journalist, ample time was available for proper research, editing, and publication. Indeed, only a few early publishers had access to a printing press with which to make product. As mass media progressed, and new forms of print and broadcasting appeared, the time allowed for journalistic reflection shrank. The Internet allows news and information to move at tremendous dispatch, limited only by the

speed of the electron or electromagnetic wave. The immediacy brought by the online environment, a medium where everyone is a potential publisher, allows for even less de liberation by the journalist and editor. Matters of anonymity, identity, access to information and protection of intellectual property impact the practice of online journalism. This paper will discuss how journalists and media organizations are dealing with the issues of ethics and credibility on the Web: how cyber journalists can use personal, institutional, and technological tools to ensure the consistency, fairness, and believability of their product.

Ethics
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The speed and anonymity provided by the Internet can play fast and loose with journalistic ethics. The Internet has created a fourth kind of journalism next to radio, television, and print journalism. Online journalists have received little or no attention from researchers, perhaps because few, pure online journalistic efforts exist, compared to the wealth of trivia, entertainment, personal communication, and pornography. These bedfellows make adherence to an ethical code all the more necessary, particularly in a time when public trust in journalism has ebbed (Yeshua, 2000).

The pessimist:
The newest news dispenser, the runaway Internet, makes a journalist out of anybody who has a modem. It values speed and sensationalism above accuracy. New media will not accept our standards. We are foolish to treat them as if they have. This is a grim time for newspapers. -- Portland Oregonian Editor Sandra Mims Rowe

The pragmatist:
It's past time to retire the Internet as a scapegoat for journalistic ills, it's a medium, not a message, and it can be used as irresponsibly or as honorably as a printing press or a TV network can. --New York Times columnist Frank Rich (Welch, 1998) Matt Drudge has his own self-published Internet scandal sheet (drudgereport.com). He is the poster boy for online journalism ethics, i.e., what can happen without concise ethical standards in a world where everyone is a potential journalist, broadcaster, columnist, commentator, and media critic (Grossman, 1999). See Blumenthal v. Drudge.

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Brill's Content, Columbia Journalism Review, and American Journalism Review critique newspapers, magazines, television, and radio. Founded in 1998 at the Annenberg School of Journalism, the Online Journalism Review (www.ojr.org) critiques online media (Stern, 1999). The Society of Professional Journalists also maintains an ethics guide at spj.org/ethics. New forms of journalism require new approaches to ethics. Many current ethical issues will remain, and others will emerge. Increasing consolidation of corporate media and the continued evolution of the Internet complicate the ethics of online journalism further. The need for a global approach, requiring a shared set of values, also poses a challenge for journalists in all media (Richards, 1999). Graphic manipulation, banner ads placed atop a newspaper web site, and commingling of editorial and advertising content are just a few of the many ethical issues that new media raise for journalism. News organizations have built and maintain compelling web sites; they now seek to make these sites commercially viable. Many online audiences expect content to be free, but some news organizations have turned to subscription services or paid access. Nevertheless, as the online advertising industry grows, so do the number of ads on these sites. Many media organizations maintain separate "new media" staffs, and a good number of these organizations use these "new media" staffers to create advertisements: Advertising and editorial content intertwine (Pavlik, 1997). Hyperlinks are other issues for online publishers; should a story provide links to other web sites, even if these links are not fully investigated or endorsed by the news entity? Should retractions be posted, or does the webmaster simply overwrite the incorrect content? Professional groups such as the Online News Association may provide some leadership in these areas. Online

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Journalism will surely face a great many legal and ethical challenges in the future. Leadership and ethical standards are musts for the maintenance of journalistic standards (Palser, 1999). The rules of copyright and ownership still apply to the Internet. Some sites upload a revised story, noting the time of the revision but leaving no trace of the original. Often, no attempt is made to correct information for those who read the flawed version earlier. Ethical challenges never end. The debates still rage over the application of standards to real life. It will be no different for the Internet as it struggles to find its balance. -- (Kelly, 2000) Codes of journalistic ethics (www.asne.org/ideas/codes/codes.htm) have been written in a broad manner to transcend time. Codes of ethics have framed professional careers. Most journalists contend that traditional values remain relevant online. They disagree sharply about how those values play out in a medium defined by immediacy, interactivity, burgeoning competition, and unflagging pressure to produce revenue. Such ethical uncertainty has not slowed the rush to cyberspace. The problem, say some editors and ethicists, is that the online environment changes rapidly and unpredictably. Decisions are made in a culture still uncertain of itself, and the clamor for profits too often drowns out other concerns. -- (Lynch, 1998)

Credibility
Journalism credibility has taken some hits of late. The public view o f news media is on the wane compared with recent decades. A 1999 survey of journalists by the Pew Research Center for the People & the Press found a profession in commotion. The poll included journalists from national print, broadcast, and online news organizations; about half said that the press lacks credibility with the public, a reason for declining audiences. Also noted was the eroding distinction between reporting and commentary (Witt, 1999).
Also in 1999, editors and reporters at eight newspapers undertook projects intended to help shore up trust within readership circles. The efforts were products of the American Society.

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of Newspaper Editors' credibility study, which found that "factual, grammatical, and spelling errors in stories undermine credibility; that the reading public suspects sensational stories are overplayed." Further findings: "…many think journalists are manipulated by powerful people and advertisers. Admitting errors and running corrections helps, not hurts, credibility" (Truitt, 1999).
The Internet provides the news content equivalent to thousands of newspapers each day through web sites, emails, instant messengers, listeners, discussion groups, or personalized homepages. The Internet also provides a lot of information of dubious value. John Pavlik asks if online journalism is little more than another delivery system for "old" media. He defines news content on the Internet as having gone through three stages.
1. "Repurposed" content from a traditional parent medium
2. Original content augmented with hyperlinks
3. Content designed specifically for the Web as a new medium of communication for an online community.Pavlik notes that news organizations are aware that young people seek news from online media. Future audiences will be drawn by a website's content and perspective, as well as its quality (Pavlik, 1997).Open-source journalism makes news stories available to online communities for scrutiny and corrections before final publication; some say it is the "new journalism," others strongly oppose it. It is not clear how this technique will jive with tight deadlines (Moon, 1999). Dyed-in-the-wool journalists think mainstream news organizations should not lower their standards in the rush to get online. The role of the gatekeeper has changed, however. Traditional news organizations no longer have the exclusive power of publication (Lasica, 1998).

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Online reporters struggle with credibility because many who publish on the Web are untrained in journalism or industry standards. Striving for accuracy help. There is a pressure on journalists to break news, to scoop.abandon the scoop culture of 100 years ago. Net journalists are taking even less time to check their stories than they did in the old media. The rush to put these online is undermining journalism everywhere. --Media analyst Ellen Hume (Hyland, 1999) Many news stories self-criticize reportage, but they only scratch the surface. Taking exceptional care to be late rather than wrong can increase

credibility, something difficult to regain once it is lost. The loss of balance and fairness through under sourced and inaccurate reporting will make it much more difficult for the press to perform its watchdog function (Cowan, 1998). Academia Journalism is at a juncture where staid social systems and new technologies converge, placing an unprecedented onus of credibility and objectivity on gatekeepers. Editors wield tremendous social power. Mass media are no longer linear. Communication once directly conveyed messages related to survival. Such data now pass through subjective media filters, ending with a product called "news." Terms: "News" was first delivered after Gutenberg (c. 1457), and "journalists" began expressing themselves around 1833. Reporters and editors soon became powerful distillers of information. The medium of data transfer was print on paper, readily subject to quality control. Accuracy and balance were valued and controlled.

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The Internet has brought a multiplicity of senders and receivers, destroying the linear paradigm. A blow was dealt to editorial agenda setting. Veracity is paramount in the synaptic ricochet of the online news environment. Retaining credibility in this new psychologically intuitive medium is critical. Control of content and quantity of the news appears to s lip from editors' control. "Pathfinder" is coined as peers evaluate newsworthiness. Perhaps future gatekeepers will be dubbed "information specialists." A paper from the Netherlands reports the findings of a pilot project involving online journalists and online journalism graduate students who relate their experiences and views on ethical dilemmas in the new medium; new media ethics are analyzed (home.pscw.uva.nl/deuze/publ15.htm).Loyola University Chicago houses the Ethics Advice Line for Journalists; this is a free service for journalists to call and talk about ethical dilemmas. Volunteers staff the phone lines. Three volunteers teach ethics and two are on the university's ethics advisory board. The center will log calls to identify areas where journalists are having ethical dilemmas (Garcia, 2001). The University of Florida recently filled its Knight Chair in Journalism with online news professional, Mindy McAdams. The university has a thriving J-school utilizing interactive media. Areas of research include gate keeping theory, diffusion of innovation theory, sociological perspectives, and a perspective that explores the idea of journalism as a cohesive force in society (Singer, 1998).

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The developments of online relationships have been viewed as virtual communities. Findings from an ongoing case study of web-based news suggest the early ideals of democratic community-building on the Web are encountering resistance as media organizations define "virtual geographic space" and stake out "territory" on the Internet. The traditional press is fusing with computing and telecom to create a new medium of human communication. The World Wide Web is a space allowing global community-building without regard to geography or time. Online journalists and media organizations would do well to mine this resource. Common interests make connections; tapping into these connections makes profits (Riley, 1998). In The Printing Press as an Agent of Change, Elizabeth Eisenstein hints that credibility of the printed word accrues through reputation and print quality—two components inherently absent from much of today's online reportage. Post-publication manipulation of electronic copy and lack of editorial control are also cited for credibility concerns. Some authors speculate on the future demise of press objectivity and ethics, while journalists align with special interests, advocacy groups, and titans of commerce. They see a dismantling of the firewall between advertising and news: Ads, opinion, marketing, and news will become intertwined as the audiences lose their faith in journalistic objectivity. Advertisers have a long tradition of influence peddling with regard to editorial content; it is a vested interest. Media are often susceptible to this pressure. Online news reporting is now dynamic and often "pre-verified." Print journalism is more static. This disparity fuels the fragmentation of news consumers into readily targetable audiences or niches. These niche targets are sometimes labeled as communities defined by shared interests rather than simple geography. Ambient ads, commercial links, a gauntlet of promotional data, and the ever-

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Coalescing media empires threaten traditionally objective reporting. News and entertainment blur together, as do news and opinion. The marketplace of ideas and audiences are fracturing, i.e., subdividing

into mini- markets.   Terms used include info harvesting and demographic nuggets. Each new communications medium presents challenges to marketers. Tailoring messages and content to audiences is key in the electronic media marketplace. Vertical integration of communications   corporations, the social implications of online journalism, and their facilitation of these niche audiences are significant (Borden, 1998). Journalism schools are tapping talent from other disciplines and from online newsrooms. "…but case after worrisome case…marketing and advertising discussions…slopped over into the newsroom" (Harvey, 2000). Content is King says Mark Deuze. Content influences the public agenda. It helps to determine perception. Journalists and editors are responsible for content acquired through media, and thus set an agenda. "…a new type of communicator has arrived: the online journalist" (Deuze, 1998). Some academic links: http://www.aejmc.org/pubs/onlinejournals.html
http://www.aejmc.org/pubs/webcourses.html
http://www.worldinternettimes.com/

Vocational Journalism
The recent spate of firings at, and the downsizing or disappearance of, many online news outlets not associated with major media companies are a concern. Important points to consider about these endeavors and their employees' job security, financial viability, and journalistic

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Independence. Advertisers, venture capitalists, and investors have pulled back from these websites, as have many subscribers. APBnews.com was gone (now reborn), and a sleeker Salon.com survives on a shoestring, while Slate Magazine and MSNBC.com, et al, motor on with backing from their huge corporate parents. Niche sites, such as those targeting African-Americans, have struggled in the past, but hopes are that, given sufficient promotion, they can flourish on the Web. Promotion and new technology are also essential. Listservs, web-based tip sheets, and electronic databases are the tools of the new, computer-assisted reporter (CAR). It is difficult to envision a world without email, the Internet, and web sites for most every niche. The field of online journalism is still young. When Congress released the Starr Report on the Web, making it instantly available to the public, the game changed. No waiting for journalists to digest material before telling you about it. It was right there, right away (Rieder, 1999). Lack of diversity plagues online journalism, claims Adam Clayton Powell III. A 1999 Freedom Forum survey showed that a majority of journalists of color at U.S. dailies expects to leave the news business. "There's not just a glass ceiling, but brick walls and hostile gatekeepers" (Powell, 1999).
Recently the Seattle Post-Intelligencer set about the task of recruiting an online producer
to help energize its web site, but the job announcement was "purposely vague," said Lee Rozen, the new media manager at the Post-Intelligencer. Salary, education, and experience levels were omitted. "Perhaps a tolerance for ambiguity is one of the skills I seek," said Rozen. Lack of job standards creates confusion (Perlman, 1999).

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In "We're All Nerds Now" (1999), Joel Simon and Carol Napolitano synopsize the advent, status, and future of computer-assisted reporting. They discuss the availability of some electronic databases, as well as software used to manipulate these data. Computer literacy is seen as a challenge for inclusion and improved credibility, rather than an obstacle to progress without specialization. This article serves as a primer for modern CAR. On 27 March 1999, Congress's Standing Committee on Correspondents voted to reinterpret its rules on who qualifies for accreditation as a Washington reporter to include online reporters. "The press pass not only provides preferential seating in congressional hearings but also helps open doors to the inner sanctums…" (Meddis, 1999).
http://ajr.newslink.org/special/
http://onlinejournalism.com
http://isyndicate.com/
http://www.netcontent.org/
Conclusion
One of the most easily accessible theories is the journalist as gatekeeper, a role that clearly seems threatened by a medium in which users can put their fingers on virtually any piece of information at will.

There exists a proposal to certify web-based news by establishing a "dot news" (.news) domain. Electronic media certainly can be credible, but their advantages of speed and audiovisual enhancements tempt the journalist to hasten his/her copy. The Internet can deliver in-depth stories and news, as well. However, audiences mostly look to this medium for the quick new bites rather than more detailed information.

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In the last century of mass media, we have heard predictions as to the demise of certain media manifestations whenever a more complex form emerges. Generally, each older form falls back into a workable niche, when a new one appears. Just when we feel assurance that we have reached a static pinnacle of communications technology, we are surprised (www.journalists.org). The evolving medium of the Internet provides journalists a fresh means of communication and research. Companions to these new capabilities are potential pitfalls. The

Definitions of journalists and publisher become skewed. Legally, anyone who posts information on the World Wide Web is a publisher; the people who compose the information are journalists, regardless of training or experience. Both are subject to the same privileges and liabilities of their conventional counterparts. The Internet spans the globe, encompassing all manner of geography and political/governmental entities.   Today we see online web casts of news (www.freedomforum.org) and even the injection of audience input in breaking news (www.cnn.com/cnn/programs/news.site). It is a brave new world in the field of online journalism. Adhering to conventional ethics and credibility can help ensure its success.

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Impact of Internet on Journalism

Traditional media started developing online presence:

Because of the massive and extraordinary development the internet has experienced, many traditional media institutions like newspapers, magazines, and radio and television channels started making plans for the Internet future, and put their presence on the web and tried to arrange audio and video broadcasts over the Internet.   Most newspapers seem to have chosen one of two approaches to the Internet. The first - and most common - approach is to have selected articles from the newspaper on the internet. The second approach is the same, but with more focus on adding content exclusive to the web pages. This allows the internet pages to have more news aimed at narrow audiences. The latter approach also offers a better integration with news and user interaction. It includes interactivity and innovation.

Anyone can be publisher
When print media was the only medium available to journalist, a few publishers had access to printing press with which to make the product. But the internet is largely uncontrolled; anybody can say anything s/he pleases. This has led to many news pages being set up by "The Common Man." Any one having internet connection can be publisher.

Internet introduced Mass interaction to mass media:
Before the   Internet,   most   communication has   been   largely   unidirectional. Journalists gather information and bring it back to the news desk. Here it is edited, and returned to the audience. However, "audience members are rarely able to use the media to send their own messages. Audience feedback is infrequent, indirect, and delayed" The internet changed all this: "What distinguishes the Internet from other media is its ability to provide feedback quickly and easily from receivers to senders. The Internet has introduced mass interaction to mass media."

 Impact of internet on News gathering
Internet opens new avenues of information for journalists. Journalists can no longer ignore the wealth of valuable information on the Internet. Internet stands as the single largest source of information available anywhere in the world. Journalists are now using the Internet for a wide range of purposes to enhance their newsgathering. Common uses include finding people and news story sources, locating experts for stories, checking clips of other news organizations while preparing stories, conducting background research about businesses and individuals, identifying new story ideas, and locating both public and private information stored in digital form. These online tools save time and money, are more thorough, and can link information in widely diverse locations. Internet and web have totally revolutionized many aspects of journalism in the past 10 years. "The Internet and web have put an unprecedented amount of information at a journalist's finger tips. The Internet and web have also resulted in a great deal of information becoming available globally, thus extending the reach of journalists in quest of information," Reporters can use the Internet to search for information like sports results, company details and phone numbers. It speeds up the process in finding information and contacts and. They can find statements from people online, which help with quotes. That fact alone has meant that journalists in traditional media have

new sources and new research tools. "Development of the Internet and web also mean that journalists can now obtain information and records which could not have been accessed before without traveling to particular courts, and government offices. "Online resources have had the greatest impact on news gathering providing rapid and easy access to massive resources for information, potential interviewees, and websites to help verify information, and analyze data such as statistics. Search engines are another tool for gathering online information which opens the door to news resources. Search engines and online directories have made it much easier than ever before to find experts to comment on issues. They have revolutionized a journalist's ability to research, find background information and to track down primary documents and sources.

There is so much information available online that it can be difficult working out where to start and where to stop gathering it. With the change to a much broader reliance on the Internet and web for news, it will become increasingly important for journalists to be multi skilled able to work in more that one medium, and preferably in several, in what has become known as a converged media environment.

Impact of internet on Access to information and distribution of news
Internet has changed the way people access to news and provided flexible delivery platforms to keep the audiences up-date. The internet provides 'immediacy of content' and has the technological ability to instantly report an unfolding news event. It disseminates information
quickly. News consumers no longer have to wait for hourly or half-hourly radio news updates, evening television news bulletin or tomorrow's newspapers.   Because   Web   updating   news, simultaneously, repeatedly minute by minute. Now they can access news online,   almost as it is happening.   Internet gives preference to the readers and users and provide them the choice to select what kind of news they want to have and with which frequency (includes details and contextual information to the news story), from where and when. In this medium content is user control. Users can access the news and information at any time they want, there is no time limitation because data is stored in archives which can be access afterwards, the only thing is to have an internet connection.

Flexible Delivery Platforms
Online news contents included in searchable databases help readers to view content on the topic they are searching for.

SMS on cells: News web sites provide its users the facility to subscribe for news alerts and breaking news and updates available through SMS on cell phones.

Breaking News emails alerts: is another flexible delivery platform through which internet users can receive news updates and alerts by email in their inbox.

RSS feed…. RSS is a mechanism used to distribute news content without depending on the browser or email client. RSS stands for "Really Simple Syndication" is a popular choice. In general it means time savings because you stay ahead of what's new without having to browse every site you normally visit. An RSS reader aggregates the content for you to view in one place; this saves time and brings you the content like when you're reading a newspaper with the advantage to view only headlines. You're in control of which articles you want to read. News services, Databases and many web logs are typically now RSS-enabled. News feeds from major publishers that you can syndicate on your website for free. Cell phone users can read online newspaper, see advertisements and watch television with their phone because of internet technology convergence. The cell phone is one of the vehicles upon which new media can be distributed and broadcast.

Impact of internet on Process, Production, Storing, retrieval and Presentation of news
The spread of computers, software and the Internet is changing how reporters work. Reporters now routinely collect information in databases, analyze public records, conduct interviews by e-mail, and research background for articles on the Web. Other major way the Internet and web have improved journalism is that they have made it possible for a journalist with a laptop, mobile

Phone and digital camera to work from literally almost anywhere in the world, instead of being limited to working from newsrooms and bureau offices, as they were in the past.E-mail interviews are also valuable because they provide a written record of answers and are a useful research tool for background information in follow-up stories, features and investigative journalism. E-mail has become a great tool for interviewing people and also for forwarding information and text as well as photos and graphics. It is also particularly useful for interviewing people, or contacting people, who live in different time zones. However, unlike other interviews it has the disadvantage of no voice-to-voice contact to detect nuances of mood and character and no room for impromptu questions. E-mail interviews rarely stand-alone and follow-up telephone calls are often needed for clarification and verification. Journalist can write and edit reports and news stories on the laptop or computer and send his reports or news stories to the news room from any location in the world. They can even send pictures and images taken by mobile phone or digital camera through email facility.   The Internet provides the journalist with a vast range of new opportunities for   feedback,   customization of   content,instant publishing, archiving, (hyper)linking, the use of audio and video, etc., all of which can have serious implication for online media production and in particular online news presentation.

A news story on the Internet should be structured in chunks of information, all linked to one primary 'anchor text,' which can be seen as the top level that provides the essence of the story. This implies a non-linear type of storytelling that might combine aspects of both print and broadcast media. It is, of course, important that the online journalist can keep the reader curious enough to browse through the different chunks of information (Fredin & David, 1998).
"Primary and highly related aspects of cyber-communication which are at the core of its media logic, and which will continue to present news to shape to the formats of cyber-journalism in the future, are: multimedia, hyper textual, interactional and archival.

Multimediality
we mean the extent to which text, graphics, sound, voice, and (still and moving) images are translated and integrated into a common digital form (Dahlgren, 1996, p. 64). It must be emphasized that multimedia refers to a new media format that results from the convergence and integration of traditional print, audio and video formats.
Internet provides opportunity to the journalists to present **non-linear types of storytelling**, by using hypertext and multimedia in innovative ways.   One of the important implications of multimedia is that the online journalist must learn how to work with these different formats. For his writing, the journalist will also need the skills to decide for each story that which part or parts of the story will consist of text and which part(s) will carry audio and/or visual elements.

The online media professional can use   hyperlinks that are either internal or external. Internal links refer to other texts (or sections) within the site, while external links refer to texts or sites located elsewhere on the Internet. Effective use of internal and external hyperlinks is a basic element of good online media production. It enables journalists to refer their readers to all kinds of background or related information, ranging over archival documents, illustrations, primary sources, multiple perspectives on a particular topic, and so on.

Interactivity
It is related to the user's 'control over content'. Indeed, on the Internet the consumer can determine where, when, how and what he or she wants to consult. In this respect, communication on the Internet seems to shift from the traditional 'transmission' model of communication) to more balanced communication patterns of 'consultation' and 'conversation' (McQuail, 2000, pp. 129-132). In a second sense, interactivity is described in terms of 'feedback' and two- way or multiple-way communication ('conversation') between producer and consumer. This kind of interactivity also takes on different forms: e-mail, chat, message boards, etc.
Internet has provided the ability of storing and archiving journalistic contents including that can be viewed any time from any place. The   'archival' function, for its part, can be seen as an aspect of both interactivity and hypertextuality. Indeed, an online archive - or the information it carries - is 'hyperlinked'

with other (fragments of) texts, while the interactive element lies in the user's ability to 'control' the search in the archive. This function by internet is providing more depth information to the journalistic contents.

Analysis of Web Sites

AIM: To brows and critique existing Web sites. To create critical awareness of navigational, design, aesthetic and content components of Web sites and to introduce the features and building blocks of a good Web site. To create awareness of features that makes a Web site difficult or unfriendly to use. To produce a list of do's and don'ts that applies to building a Web site.

Checklist for the analysis of Web sites
This list below includes various criteria by which you can evaluate Web sites. It is not always immediately obvious why we prefer some sites to others, but by taking the time to understand what makes a Web site 'work' for us, we can begin to establish some best practice rules for creating really effective Web sites.
Develop a list of some web sites for analysis and assign each site and score for each question:
- Excellent
- Good
- Not good, but not entirely useless
- Useless

1- How navigable is the site?
- Is it easy to find the information you're after, given the various signposts on the Home Page?
- Is it easy to find your way back to the home page or other main section pages from the site's 'interior'?
- Are the navigation graphics self-explanatory?
- Do you have to click through too many pages, to get to your destination page?

2- How readable is the information on the site?
- You've found the section of the site with the relevant information for your needs -is it easy to read?
- Are there clear headings on the page?
- Is the size and color of the text easy on your eyes?
- Do the graphics on the page compliment, or detract from, the text content?

3- Is the site aesthetically pleasing?
- Do the colors of the site design work well together?
- Is there a continuity of style between the graphics?
- Is the spatial arrangement of text and graphics complimentary, incidental or Irritating?
- Is the design of the site in tune with the subject matter/organization?

4- How informative is the site?
- Does the information on the site stick to overviews and links to other resources, or are there opportunities to access in depth resources?
- Are there opportunities to interact with the site and ask for additional?
- Information (e.g. 'contact us' buttons etc.)?
- Are the search pages, discussion forums, guest books and other special features clearly explained and easy to use?
- Are the lists of contacts, resources and links annotated with useful descriptions, explanations and advice?

5- How long does it take to get the page loaded onto the screen?
- Are there large graphics that slow down the delivery of text onto the site?
- Are there text alternatives to the graphics to read whilst waiting for the graphics?

- Does the length of the page force you to wait a long time before you can read what is at the bottom of it?

6- How does it look on the different browsers and different resolutions?
- How it appears on Internet explorer?
- How it appears on Netscape Communicator?
- Does it look same on the different resolutions?

7- How does it come with Daily Updates and Breaking News?
- Does it look static all the day?
- Does it provides follow ups and updates constantly, throughout the day?

8- Does it provide any system to enable readers to alert to mistakes and hold us accountable?
- Does it manage for the corrections, modifications and changes on daily bases?
- Does it make corrections in the follow up stories?

9- Does it provide the facility of Feed back?
- Does it include two-way, interactive communication systems?
- Does it provide the facility of inter personal Communication?
- Does it provide the contact information or any other way of getting response and queries of users?
- Does it provide the way to users to comment on news story or other journalistic content?

10- Does it provide the facility to view or read the old versions of news paper?
- Does it archives or create a directory for each year of issues?
- Does it provide the facility to search the articles with respect to date of publishing?

11- Does it provide the facility of Search the site because the larger sites need a search feature so visitors do not get lost?
Information architecture
Information architecture, as its name implies, is fundamental to your design.   Information architecture (also know as IA) is the foundation for great web design. It is the blueprint of the site upon which all oilier aspects are built - form, function, metaphor, navigation and interface, interaction and visual design. Initiating the IA process is the first tiling you should do when designing a site. Information Architecture includes:
1- Defining the mission and vision for a site;

2- Determining the content and functionality of the site:

3- Specifying how users find information on the site; and

4- Mapping out how the site will accommodate growth and change.

When describing information architecture, designers often focus on the third role, which is specifying how users find information on the site. This role can be broken into role into the following tasks:

- Designing ways to group your content;
- Designing a labeling system for those content groups;
- Designing navigation systems to help you move around and browse through the content; and Designing searching systems for your content.

Navigation
Navigation is a sub-set of information architecture. It also emphasizes the interlocking relationship between navigation, content grouping and site structure within the overall information architecture.

Navigation is the means you offer your users to locate their position within your site and find their way around the structure, both forwards and back again. It gives them something to hold on to and, if you get it right, it will increase both their confidence in your site and their ability to use it.

Three fundamental questions of navigation on a web site are as follows:

- Where am I?
- Where have I been?
- Where can I go?

No matter what navigation design you pick for your site, there is one common theme to all navigation. All it does is visualize the user's current location and alternative movements relative to the structure of the underlying information space. If the structure is a mess, then no navigation design can rescue it. Users like to build a mental picture of the organization of a site. This is not possible if there is no proper structure. Web sites are built around basic structural themes. These fundamental architectures govern the navigation interface of the web site and mould the user's mental models of how the information is organized.

User interface

For successful navigation design, it's important to consider the interface as well. In the graphical environment of the Web, interface design has to do with constructing visual meaning. The happy marriage of architecture and interface - of logical structure and visual meaning - creates a cohesive user experience. The marriage is crucial to helping users get around on the web.

The user interface can extend, for example, to how well or badly you have labeled your content sections. If the labeling is ambiguous, you are making it more difficult for the user to operate within the environment of your site. However, with the web, the focus is on making sense of the environment generated by the medium, with its interactive and graphic capacity. You can structure your content logically and provide the right navigational help, but how your user is able to relate to them and work them is the key ingredient of interface. User interface can be everything from having standard colours for visited links to using metaphors that help deliver the other elements of the information architecture (e.g. content categories and navigation). You may use the disciplines of graphic design to present your interface, but they arc not your interface design. That should centre on functionality and utility.

Graphic design

To some beginners, this is web design, i.e. the layout, use of typeface, colours and graphics. It is in fact just one stage of the process, but a critical one. Being a graphic designer must be a frustrating business. To the uninitiated it looks easy because you can change the font and text layout with the click of a mouse. This gives people the false impression that as they can 'do a little graphic design', they can try it on a web page. This is not the case. There is a good argument for saying that if you only have enough budgets to call in a single expert for your web project, you should make it a graphic designer. It is a highly skilled discipline, particularly on the web, which is not an understanding environment for graphic designers. It is difficult for them to control how the same page is seen by every user because, among other things, not every user uses the same type of web browser.

Usability experts

Usability is now a big issue in the web world. Expectations have risen and choice has been extended. Sites must deliver. But do not confine usability to information-based content. If an entertainment site is not entertaining, it's got a usability problem. A good way to test whether a site is delivering the high-quality is constantly to check with your users and consult a usability expert.

Site mapping

Aim: The aim of site mapping is:

- To develop a strategic approach to site planning and development.
- To understand why it is necessary to develop a 'statement of purpose' for a Web site and why the target audience of the site should be identified before building a site.
- To understand why it is important to plan the structure of a Web site.
- To map out the site in a manner that ensures easy and effective navigation by users.

- To map out the site in a manner that will make it easy to maintain and add new information on an ongoing basis.

Plan and build a site

You will now plan and build a site as follows:

1. Discuss the purpose of the site. In other words, what do you want the site to achieve?

2. Who is the intended audience of the site? Not just the people that will access it, but also the people that you really want the site to have meaning for.

3. How does the site relate to the broader goals and communication strategies of your organizations?

4. What kinds of information circulate in the organizations in which you work, or have worked? This could include: staff profiles; project work, recent news, events, newsletters etc. Try and make the list as long and varied as possible. Assess whether this information is relevant for the Website. Use the purpose of the site, as defined earlier, as a yardstick.

5. Look at the list and try and come up with 6-8 headings that are inclusive enough to accommodate all the items on the list. These headings will form the entry points to information within the site, so they need to be as self- explanatory and useful as possible. They will become the main links from the home page. Avoid acronyms, and keep the headings simple.

6. Now link the items in the first list to their relevant section heading, by drawing lines from one to the other. Some headings may contain several items on the list, while others might contain only one item. E.g., newsletter may be the only item that is linked up with the News section heading, while staff, history and Donors may all be linked to the About Us section heading.

7. We now have enough information to draw a map, which shows the basic structure of the site. This map will also show routes around the site, that is, how users can navigate their way from one page of information to another. The different headings will become different sections of the site.

8. Draw a diagram that contains a box to represent the Home Page and boxes for each main section page, on a single sheet. Place the Home Page in the top left-hand comer. Draw arrows from the Home Page to all the pages it should link to.

9. Having established where the user can go to from the Home Page, we now need to look at links from each of the other Main Section pages. Insert arrows to demonstrate these links on your diagram.

10. Now we can start adding documents to the main sections to see how this affects navigation of the site. The news stories or 'documents', which make up the News Section, are all linked to from the News page, and link back to it as well. They also link back to the home page, but these are 'one-way streets'. Each Main Section page should give the user an opportunity to return Home, or visit the site's other main sections. This results in the site developing 'two-way streets' between all these 'principal' pages.

11. The site has been mapped for the user that will navigate it. Now we can turn to the Web master's plan: the file and folder (or directory) structure of the site.

12. Consider each of the Main Section Pages in turn. Check which ones will form entry pages to other documents, and establish which ones will contain that section's information within that single Main Section Page. For example, the News Page will probably link to other pages with news, while the Links Page may well contain all its information on that one page. It is important to think ahead when making these decisions. Assess which sections are likely to grow into collections of pages, and which ones will remain concise and no longer than one page. Any section which looks like it will grow into several pages of documents will become a folder:

Design your web resource
Following are the key stages in developing a web resource. These stages will guide you, as you take your content through the design process.

1- Ask yourself if online the right medium for your message is.
2- Define who you are trying to communicate with and what you are trying to communicate.
3- Define your mission and the goals for your site.
4- Consider all your potential content.

Four main types of content are:

- **Static -** any information that is unlikely to change, for example contact details, site rules and codes of conduct;
- **Dynamic -** 'what's new' sections, daily news and articles; links and references;
- **Functional -** menus, navigation bars, etc.; and
- **Interactive -** e-mail, members' areas, forms and scripts.

5- Organize the content into sections.
6- Choose a structure for your sections.
7- Give users the tools to find their way around the sections.
8- Present the whole package effectively.
9- Ensure that the whole package works within the online environment.
10- See what your users think before going live.

Qualities of a good web site:

1- The freedom enjoyed by users roaming where they wish, gathering content, comes at a price that you, the provider, have to tell your users where they are within the web and the site, and to help them find their way around all the other pages; helping the users to operate in a screen-based interactive environment.

2- Give users the tools to find their way around the sections.

3- The first thing you must offer is consistency. You may want to offer a rich mix and variety of content, but if you want users to find it you must give them clear and consistent guidance around your site structure. Remember, not all your visitors will come through the front door. Some may be delivered to a single page, deep within your site. by a link from elsewhere. So each page should be able to stand alone editorially with a clear identity and provenance.

4- Each of your pages should contain your site identity, usually a consistent logo or heading.

5- Each of your pages should state who created the content on it.

6- Also inform the readers when it was created or revised.

7- Provide an informative title for the content.

8- Indicate which area of the site the user is currently in.

9- Provide a link to the home page.

10- Provide a link to an index or site map.

11- Provide a search facility;

12- Provide a way for the users to return to previous pages.

13- Provide a linkable summary of where else on the site they can go; and

14- Link them to web content anywhere that is specifically related to that page.

15- Don't put ambiguous labels on content categories

16- Standard features that can support navigation

There are certain standard features that can support navigation, such as links being underlined and the cursor arrow turning into a hand when over an interactive area. In theory, your browser window can help with backtracking by offering 'Forward', 'Back' and 'History' buttons, although these do not help users who have parachuted in from another site to navigate yours. The 'Back' button will only return them to the previous site they were visiting. So you've still got a bit to do.

17- Do not put search facilities at the bottom of the page and, so, usually off- screen unless the user scrolls.

18- A page must have a visual balance. The size of graphics and images should be in relation to others.

19- Do not forget the white space:

White space - the space between visual elements - is an integral part of the message ... the white space tells you where one section ends and the other begins ... systematic use of white space can vastly improve the presentation of text for easier reading and better comprehension. Designers have always been aware of its potency on the printed page. The screen is no different. Some of the most successful web pages use the background to the content to form a design as much as the content itself. The successful use of white space is a great skill. It is not just the holder of the text, images, etc. It has a visual weight of its own.

20- Use of color:
Color is a powerful tool in the designer's box, so you are advised to use it carefully. Color can say much about your site and you. It should be used in line with your mission statement. Color designed by mission. But if the purpose of your design is to communicate, color is an important part of this process.   If you think carefully about your users and what they want, you can provide a color scheme that will enhance your message and encourage user involvement.

21- Use of Type
Type plays an important role on almost any web page. The two main issues for type are readability and legibility.

Readability is important when reading a lot of body text. A serif text such as Times New Roman or Georgia is often used because the extra lines on the edge of each character helps the flow of our eye movement and makes it less tiring to read large amounts of the text. However, poor screen resolution can reduce the benefit of this by making the serifs less distinct.
Legibility is important for short sections of text such as headlines. Sans serif fonts such as Arial or Veranda are preferable, not just for headlines but also the body text if the serif font is indistinct.

Useful Tips for Effective Web Design

Here are some essential web design tips that every web site should follow. Design your web site by following these tips and I guarantee that visitors will have a great first impression of your site.

1. Fast Loading web site designs - This is the number 1 tip that every web designer should follow. You might design a web site that looks fantastic but few people are going to see it if it takes a long time to load. Your designs should be optimized for the web and should not take more than 15 seconds to load. Remember, you might have a great design but very few people are going to see it if it takes a long time to load.

2. Clear Navigation - Once a visitor has come to your site you need to make them go through your site. To do this you need to have clear navigation. Make sure all your important links are at prominent places. Preferably right on top - that's usually where a visitor first looks. Make use of menus on the right and the left. Try to link to as many pages of your site. Let your information be accessible from all parts of the site. You never know what a visitor may be interested in. Try to also use the footer for your important links.

3. All Resolutions - Today, there are computers with all kinds of resolution. They range from 640 x 480 to 1024 x 768 and go even higher. Your job is to design your site for all these resolutions. The best way to do this is to design your site in terms of percentage and not pixels.

4. Browser Compatibility - Make sure your site is browser compatible. Your web site should look good in Netscape as well as in Internet Explorer. Don't stop designing your site as soon as you find that it looks great on IE. Usually Netscape gives some problems, especially when you try doing complicated HTML designs. But don't give up too soon; usually with patience these problems can be easily fixed.

5. Readable and professional looking fonts - Don't ask me how many times I've clicked out of a site just because the font is in Comic Sans and the color is a bright pink or green. Just by looking at the font you feel that the site is not a professional site. Don't use Comic Sans and other fancy fonts that may not be available on most computers. If the font you use is not available in a visitors computer the web site will use the default font of your computer which is much worse. So try to keep to common and professional web fonts. The fonts that I always stick to are Arial and Verdana.

6. Minimize the use of images - I believe that sometimes simple designs are the most effective for the web. Keep your site simple but neat. Don't clutter your page with big, bulky images that take ages to load. Instead use tables creatively and design eye - catching icons that will draw a visitor's attention to a particular section of your site. Tip - Visitors are usually more interested in content than in design.

7. Use of white space - Try not to clutter up your page with too many images, backgrounds and colorful fonts. Again use the Keep It Simple principle by minimizing the use of graphics and using a lot of white space. White space gives a sense of spaciousness and overall neatness to a site. Notice the white space in our site.

8. Check for broken links - Always check for broken links within a site before uploading it to your web server. In Dream weaver you can check for broken links by right clicking on any file in the Site Files Window and then clicking on Check links - Entire Site. If you don't have this facility you need to upload your site and then check it using online tools like Net Mechanic.

Tips to Fast Loading web site designs

The Number 1 rule that every web designer should follow is to create a fast loading web site. You might have a great design but very few people are going to see it if it takes a long time to load. While designing a web site always think about how long it will take to load. Try out our tips to build a great looking web site that also loads fast.

1. Minimize the use of images - The key to a fast loading web site is to minimize the use of images. Images do enhance a page but don't make 80% of your web site only images. Instead break it down as much as possible to simple HTML. Notice the popular sites like Yahoo, Google, Ebay, Amazon etc., they have very few images because the load time is more important. Very often simple designs are the best.

2. Optimize images for the web - Once you have decided on the images that you need on your site, make sure that it is optimized for the web. They should be in the gif or jpeg format. You can also minimize the size of the image by choosing the number of colors you need, from the color palette. The less the colors you choose, the less the size of the image. You can also use online tools like Gif Wizard to optimize your images or to get a recommendation on how to cut down the size of an image.

3. Use Tables creatively - You can get some great looking designs by using tables creatively. Tables load very fast because it is just HTML code. Tables can be used in the
homepage, menus or anywhere you like. Check out our homepage and our menus to see how we have used tables in our site.

4. Cut down the use of animated gifs - Don't use animated gifs unless it is necessary. Animated gifs take a long time to load and can also be very irritating. But since they catch your attention you could use small animated gifs to draw a visitor's attention to a particular section of your site.

5.   Design simple icons - Instead of using big, bulky images use simple and small icons that add a little color and draw the attention of a visitor. We have used small icons in our homepage to highlight the main sections of our site.

6. Use background images instead of big images whenever possible - Use background images whenever possible. This is usually a very useful tip for headers and footers. Instead of using an image of width 580 which is a uniform design you can use just a part of that as a background fill. This reduces the size of the web page as the image is small.

7. Try out CSS Styles - Have fun with CSS styles to get some cool text effects. Again, a CSS Style is simple HTML code so it loads very fast. You can create cool rollovers using CSS Styles.   Rollover the text on the right menu to see how we have used CSS Styles to get a simple but nice text effect.

8. Use Flash cautiously - There seems to be a lot of hype about Flash but I recommend that you minimize the use of

Flash on a site. Don't make entire sites using Flash. It may look great but it takes hours to load and can really put off visitors. If you do want to use Flash use it within an HTML site and make sure it loads fast.

9. Design most of your site in HTML - As much as possible try to design your site using HTML. You can create great designs by just using HTML code. Use tables, CSS Styles and simple fonts to design your site. Minimize the use of animated gifs, Flash, bulky images etc.

10. Keep checking your load time - Last but not least, before you decide on the final design of your web site, check its load time.

Effective Navigation Guidelines
Website navigation is the most important aspect to consider while designing a website. The primary aim for effective navigation is get your visitors to stay in you site and also for visitors to easily find what they are looking for easily and quickly. Designing effective navigation can also entice your visitors to try out the other things you offer on your site. In this article we will look at some of the basic guidelines you need to follow while designing the navigation of a website.
While designing the navigation for your site keep the following points in mind:

• Organized Links
Make sure your links are well organized according to the order of importance. Visitors should be easily able to find what they are looking for under different categories. All main links should found on the top. Other interesting links are found on the right of the page. These are common and consistent throughout the site. You can also place the related links to the web page category below the right menu and also at the bottom of the page.

Note: Related links are very important as visitors coming to a particular page will probably be interested in more information you have under the same topic.

Clear and Prominent
Once you have decided on your navigation links, you need to think of the best place to put them. Navigation should be clear and consistent. Try to design your navigation on the top or on the left as these are the first places our eyes go to. Also locate the primary links high enough on the page so that they are visible without scrolling. Navigation images should be seamlessly integrated into the site design. Avoid putting navigation links at the bottom of the page as visitors will need to scroll right down to see the links. If you like you could put the important links at the top AND bottom of the page just to make sure your visitors don't miss the link.

• Consistent
Navigation should be clear and consistent. The important links of your website should be on every page, in the same location, and in the same sequence. Don't confuse your visitors by putting your navigation links in different places in different pages.

• Easy to understand
Make your links easy to understand and to the point. Usually you won't have enough place to have long links so make use of the space wisely. Visitors need to know where they will go on clicking on a particular link, so make sure your links are understandable or nobody is going to click on your links, which will defeat the purpose of designing a good navigation system.

• DHTML Menus
If you have a large number of links under categories and sub- categories you could use navigation menus to organize your links. There are many cut 'n' paste scripts available on the Net that you could use to create great navigation systems. You can find tons of useful navigation menus that are very easy to install on your site. Keeping these basic points in mind you can go ahead and design an effective navigation system for your site. Take a look at other sites to get some ideas on good navigation techniques! Another good idea would be to use eye-catching visuals and small chunks of information to draw visitors to click on a link.

Telecommunication

Telecommunication is the assisted transmission of signals over a distance for the purpose of communication. In earlier times, this may have involved the use of smoke signals, drums, semaphore or heliograph. In modern times, telecommunication typically involves the use of electronic transmitters such as the telephone, television, radio or computer. Early inventors in the field of telecommunication include Alexander Graham Bell, Guglielmo Marconi and John Logie Baird. Telecommunication is an important part of the world economy and the telecommunication industry's revenue is placed at just under 3 percent of the gross world product.

The word telecommunication was adapted from the French word telecommunication. It is a compound of the Greek prefix tele, meaning 'far off, and the Latin communicare, meaning 'to share. The French word telecommunication was coined in 1904 by French engineer and novelist Edouard Estaunie.

Basic elements

A telecommunication system consists of three basic elements:
• A transmitter that takes information and converts it to a signal;
• A transmission medium that carries the signal; and,
• A receiver that receives the signal and converts it back into usable information.

In a radio broadcast for example, the broadcast tower is the transmitter, free space is the transmission medium and the radio is the receiver. Often telecommunication systems are two-way, and a single device acts as both a transmitter and receiver or transceiver. For example, a mobile phone is a transceiver. Telecommunication over a phone line is called point-to-point communication because it is between one transmitter and one receiver. Telecommunication through radio broadcasts is called broadcast communication because it is between one powerful transmitter and numerous receivers.

Analogue or digital

Signals can be either analogue or digital. In an analogue signal, the signal is varied continuously with respect to the information. In a digital signal, the information is encoded as a set of discrete values (for example ones and zeros). During transmission the information contained in analogue signals will be degraded by noise. Conversely, unless the noise exceeds a certain threshold, the information contained in digital signals will remain intact. This represents a key advantage of digital signals over analogue signals.

Networks

A collection of transmitters, receivers or transceivers that communicate with each other is known as a network.

Channels

A channel is a division in a transmission medium so that it can be used to send multiple streams of information. For example, a radio station may broadcast at 96.1 MHz while another radio station may broadcast at 94.5 MHz. In this case, the medium has been divided by frequency and each channel has received a separate frequency to broadcast on. Alternatively, one could allocate each channel a recurring segment of time over which to broadcast — this is known as time-division multiplexing and is sometimes used in digital communication.

Modulation

The shaping of a signal to convey information is known as modulation. Modulation can be used to represent a digital message as an analogue waveform. This is known as keying and several keying techniques exist (these include phase-shift keying, frequency-shift keying and amplitude-shift keying). Bluetooth, for example, uses phase-shift keying to exchange information between devices.

Modulation can also be used to transmit the information of analogue signals at higher frequencies. This is helpful because low-frequency analogue signals cannot be effectively transmitted over free space. Hence the information from a low-frequency analogue signal must be superimposed on a higher-frequency signal (known as a carrier wave) before transmission. There are several different modulation schemes available to achieve this (two of the most basic being amplitude modulation and frequency modulation).

An example of this process is a DJ's voice being superimposed on a 96 MHz carrier wave using frequency modulation (the voice would then be received on a radio as the channel "96 FM").

Mobile:
The mobile phone, cellular phone, or simply cell phone is a long-range, portable electronic device used for mobile communication that uses a network of specialized base stations known as cell sites. In addition to the standard voice function of a telephone, current mobile phones can support many additional services such as SMS for text messaging, email, packet switching for access to the Internet, and MMS for sending and receiving photos and video. Mobile phones generally obtain power from batteries which can be recharged from mains power, a USB port or a cigarette lighter socket in a car.

Applications
Mobile news services are expanding with many organizations providing "on-demand" news services by SMS. Some also provide "instant" news pushed out by SMS. Mobile telephony also facilitates activism and public journalism being explored by Reuters and Yahoo and small independent news companies such as Jasmine News in Sri Lanka. Companies like Monster are starting to offer mobile services such as job search and career advice.

Features
The camera phone now holds 85% of the mobile phone market. Mobile phones often have features beyond sending text messages and making voice calls, including Internet browsing, music (MP3) playback, memo recording, personal organizer functions, e-mail, instant messaging, built-in cameras and camcorders, ringtones, games, radio, Push-to-Talk (PTT), infrared and Bluetooth connectivity, call registers, ability to watch streaming video or download video for later viewing, video calling and serve as a wireless modem for a PC, and soon will also serve as a console of sorts to online games and other high quality's games.

Technology
Mobile phones and the network they operate under vary significantly from provider to provider, and country to country. However, all of them communicate through electromagnetic radio waves with a cell site base station, the antennas of which are usually mounted on a tower, pole or building.

Cell Broadcast
It is also known as Short Message Service - Cell Broadcast (SMS-CB). Cell Broadcast is a mobile technology that allows messages (up to 15 pages of up to 93 characters) to be broadcast to all mobile handsets and similar devices within a designated geographical area. The broadcast range can be varied, from a single cell to the entire network. Cordless telephone (portable phone) Cordless phones are standard telephones with radio handsets. Unlike mobile phones, cordless phones use private base stations that are not shared between subscribers. The base station is connected to a land-line.

Fax:
Fax (short for facsimile, from Latin fac simile, "make similar", i.e. "make a copy") is a telecommunications technology used to transfer copies (facsimiles) of documents, especially using affordable devices operating over the telephone network. The word telefax, short for telefacsimile means for "make a copy at a distance". The device is also known as a Telecopier in certain industries. When sending documents to people at large distances, faxes have a distinct advantage over postal mail in that the delivery is nearly instantenous.

Traditional Fax
A "fax machine" usually consists of an image scanner, a modem, a printer, and usually a phone combined into a single package. The scanner converts the content printed on a physical document into a digital image, the modem sends the image data over a phone line to another device, and the printer at the far end produces a copy of the transmitted document.
Fax machine — Phone line — Fax machine

It transmits data in the form of pulses via a telephone line to a recipient, usually another fax machine, which then transforms these impulses into images, and prints them on paper. The traditional method requires a phone line, and only one fax can be sent or received at a time.

Computer-based faxing
Another alternative to a physical fax machine is to make use of computer software which allows people to send and receive faxes using their own computers.
As modems came into wider use with personal computers, the computer was used to send faxes directly. Instead offirst printing a hard copy to be then sent via fax machine, a document could now be printed directly to the software fax, and then sent via the computer's modem. Receiving faxes was accomplished similarly.
• **Computer** — Phone line — **Fax machine**
• **Fax Machine** — Phone line — **Computer**
A disadvantage of receiving faxes this way is that the computer has to be turned on and running the fax software to receive any faxes. Note: This method is distinct from Internet faxing as the information is sent directly over the telephone network, not over the Internet.

Internet Fax
One popular alternative is to subscribe to an internet fax service. Internet fax uses the internet to receive and send faxes. Fax service providers allow users to send and receive faxes from their personal computers using an existing email account. No software, fax server or fax machine is needed. Faxes are received as attached .TIF or .PDF files, or in proprietary formats that require the use of the service provider's software. Faxes can be sent or retrieved from anywhere at any time that a user can get internet access Utilizing a fax service provider requires no paper, toner, fax line, etc.

Advantages of using the internet can include
1. No extra telephone line required for the fax
2. Paperless communication, integrated with email
3. Send and receive multiple faxes simultaneously
4. Reduction in phone costs Internet fax servers/gateways

The Internet has enabled development of several other methods of sending and receiving a fax. The more common method is an extension of computer-based faxing, and involves using a fax server/gateway to the Internet to convert between faxes and emails. It is often referred to as "fax to mail" or "mail to fax". This technology is more and more replacing the traditional fax machine because it offers the advantage of dispensing with the machine as well as the additional telephone line.

• **Fax machine** — Phone line — Fax gateway — email message (over Internet) — **computer email account**

A fax is sent via the Public Switched Telephone Network (PSTN) on the fax server, which receives the fax and converts it into PDF or TIFF format, according to the instructions of the user. The fax is then transmitted to the Web server which posts it in the Web interface on the account of the subscriber, who is alerted of the reception by an email containing the fax in an attached file and sometimes by a message on his mobile phone.

Sending:
• Computer — Internet — Fax gateway — Phone line — Fax machine
From his/her computer, in the supplier Web site, the user chooses the document s/he wants to send and the fax number of the recipient. When sending, the document is usually converted to PDF format and sent by the Web server to the fax server, which then transmits it to the recipient fax machine via the Standard Telephone Network. Then the user receives a confirmation that the sending was carried out, in his/her web interface and/or by email.

An Internet fax service allows one to send faxes from a computer via an Internet connection, thanks to a Web interface usually available on the supplier's Web site. This technology has many advantages:
• **No fax machine** — no maintenance, no paper, toner expenditure, possible repairs, etc.
• **Mobility** — All actions are done on the Web interface; the service is thus available from any computer connected to Internet, everywhere in the world.
• **Confidentiality —** The faxes are received directly on the account of the user; he is the only one who can access it. The received faxes are not likely to be lost any more or read by the wrong people.
• **No installation of software or hardware** — All actions are done on the Web interface of the supplier, on the account of the user.
• **No telephone** subscription for an additional line dedicated to the fax.
• **Many faxes** can be sent or received simultaneously, and faxes can be received while the computer is switched off.

Fax using Voice over IP
Making phone calls over the Internet (Voice over Internet Protocol, or VoIP) has become increasingly popular. Compressing fax signals is different from compressing voice signals, so a new standard has been created for this. If the VoIP adapter and gateway are T.38 compliant, most fax machines can simply be plugged into the VoIP adapter instead of a regular phone line.
• **Fax machine** — VoIP adapter — VoIP gateway — Phone line — **Fax machine (or vice versa)**

Fax using email
"IFax" was designed for fax machines to directly communicate via email. Faxes are sent as e-mail attachments in a TIFF-F format. A new fax machine (supporting iFax/T.37) is required, as well as a known email address for the sending and receiving machines.

• **IF ax machine** — email message (over Internet) — **computer email account**

Video Conferencing:
A videoconference (also known as a video teleconference) is a set of interactive telecommunication technologies which allow two or more locations to interact via two-way video and audio transmissions simultaneously. It has also been called visual collaboration. Video conferencing uses telecommunications of audio and video to bring people at different sites together for a meeting. This can be as simple as a conversation between two people in private offices (point-to-point) or involve several sites (multi-point) with more than one person in large rooms at different sites. Besides the audio and visual transmission of people, video conferencing can be used to share documents, computer-displayed information, and whiteboards. The core technology used in a video teleconference (VTC) system is digital compression of audio and video streams in real time. The hardware or software that performs compression is called a codec (coder/decoder).The screen of the dual plasma on the left is primarily used to show people during the conference or the user interface when setting up the call. The one on the right shows data in this case but can display a 2nd 'far site' in a multipoint call.
The other components required for a VTC system include Video input: video camera or webcam Video output: computer monitor, television or projector Audio input: microphones Audio output: usually loudspeakers associated with the display device or telephone Data transfer: analog or digital telephone network, LAN or Internet Issues Some observers argue that two outstanding issues are preventing videoconferencing from becoming a standard form of communication, despite the ubiquity of videoconferencing-capable systems. These issues are:

Eye Contact:
It is known that eye contact plays a large role in conversational turn-taking, perceived attention and intent, and other aspects of group communication.12 While traditional telephone conversations give no eye contact cues, videoconferencing systems are arguably worse in that they provide an incorrect impression that the remote interlocutor is avoiding eye contact. This issue is being addressed through research that generates a synthetic image with eye contact using stereo reconstruction.1

Appearance Consciousness:
A second problem with videoconferencing is that one is literally on camera, with the video stream possibly even being recorded. The burden of presenting an acceptable on-screen appearance is not present in audio-only communication. Early studies by Alphonse Chapanis found that the addition of video actually impaired communication, possibly because of the consciousness of being on camera. The issue of eye-contact may be solved with advancing technology, and presumably the issue of appearance consciousness will fade as people become accustomed to videoconferencing. Videoconferencing is now being introduced to online news websites, in order to include the element of more liveliness.

Cable TV:
Cable television is a system of providing television to consumers via radio frequency signals transmitted to televisions through fixed optical fibers or coaxial cables as opposed to the over-the-air method used in traditional television broadcasting (via radio waves) in which a television antenna is required. Cable TV is a system that uses cables rather than antennas for the transmission of TV programs and commercials. A broadband communications technology in which multiple television channels, as well as audio and data signals, may be transmitted either one way or bidirectional through an often hybrid (fiber and coaxial) distribution system to a single or to multiple specific locations.
It is a TV broadcasting service that delivers signals to households via a fiber optic cable rather than a conventional aerial or a satellite dish. Like satellite, it also requires a set top box. A set top box is a box that connects to your TV and allows you to receive digital television either through cable, satellite, an aerial or through the phone line. It literally translates the digital information and displays it on your television screen. It is a component of your video system that takes an external signal (cable, satellite, etc.) and converts it into a format for your TV to view. And it is typically known as a cable box, satellite box, etc.
Coaxial cables are capable of bi-directional carriage of signals as well as the transmission of large amounts of data. Cable television signals use only a portion of the bandwidth available over coaxial lines. This leaves plenty of space available for other digital services such as broadband internet and cable telephony.

V-sat:
A Very Small Aperture Terminal (VSAT), is a two-way satellite ground station with a dish antenna. An innovative feature of VSAT is that the technology has evolved to the point that previously could only be done with large, high-powered transmitting satellite dishes can now be done with a much smaller and vastly lower-powered antenna at the customer's premises. Nearly all VSAT systems are now based on IP, with a very broad spectrum of applications.
VSATs (Very Small Aperture Terminals or Via Satellite Terminals) have emerged as the preferred means of wide area networking for financial institutions, utilities and services sector, as the VSAT has the ability to integrate data, voice, fax and also voice across remote locations. There are different VSAT technologies namely SCPC, DAMA, TDM/TDMA, and FTDMA. Adding a new location takes less than a week, and enhancing services is limited to adding or modifying software at Headquarters (Hub Control Station) only. VSATs offer high network reliability (99.5 %), remote accessibility at lower costs, transmission costs independent of distances, and centralized network control, independent of a public carrier. VSATs offer more flexibility in network expansion and redesign whereas the terrestrial network requires re-engineering, which is process that can take months and involve scores of vendors. Car dealerships, gas stations, lottery systems, banks, insurance companies, drug stores, general stores, supermarkets, healthcare companies, manufacturers, couriers, hotel chains, car rental businesses, food manufacturers, heavy industries, mines, electrical utilities, oil and gas pipelines, energy production and exploration, timber companies, plantations, various government departments and agencies use VSAT systems. VSAT services can be deployed in hours or even minutes (with auto-acquisition antennas).

E-mail:
E-mail, short for electronic mail and often abbreviated to e-mail, email or simply mail, is a store and forward method of composing, sending, storing, and receiving messages over electronic communication systems. Messages are exchanged between hosts using the Simple Mail Transfer Protocol with software

programs called mail transport agents. Users can download their messages from servers. When a message cannot be delivered, the recipient MTA must send a bounce message back to the sender, indicating the problem. Despite these disadvantages, and despite the availability of other tools, email-based communication is still the most widely used written medium in businesses.

Challenges
Spamming and computer viruses
The usefulness of e-mail is being threatened by three phenomena: spamming, phishing and e-mail worms. Spamming is unsolicited commercial e-mail. Because of the very low cost of sending e-mail, spammers can send hundreds of millions of e-mail messages each day over an inexpensive Internet connection. Hundreds of active spammers sending this volume of mail results in information overload for many computer users who receive tens or even hundreds of junk messages each day.E-mail worms use e-mail as a way of replicating themselves into vulnerable computers. The combination of spam and worm programs results in users receiving a constant drizzle of junk e-mail, which reduces the usefulness of e-mail as a practical tool.

Privacy concerns
E-mail privacy, without some security precautions, can be compromised because:
• E-mail messages are generally not encrypted;
• e-mail messages have to go through intermediate computers before reaching their destination, meaning it is relatively easy for others to intercept and read messages;
• Many Internet Service Providers (ISP) store copies of your e-mail messages on their mail servers before they are delivered. The backups of these can remain up to several months on their server, even if you delete them in your mailbox;
• The Received: headers and other information in the e-mail can often identify the sender, preventing anonymous communication.

Video Technology:
Digital Camera
A digital camera is a camera that takes video or still photographs, or both, digitally by recording images on a light-sensitive sensor. Many compact digital still cameras can record sound and moving video as well as still photographs.
Digital cameras can include features that are not found in film cameras, such as displaying an image on the camera's screen immediately after it is recorded, the capacity to take thousands of images on a single small memory device, the ability to record video with sound, the ability to edit images, and deletion of images allowing re-use of the storage they occupied. Digital cameras are incorporated into many devices ranging from PDAs and mobile phones (called camera phones).

Digital photography
Digital photography is a form of photography that utilizes digital technology to make digital images of subjects. Until the advent of digital technology, photography used photographic film to create images which could be made visible by photographic processing. Digital images can be displayed, printed, stored, manipulated, transmitted, and archived using digital and computer techniques, without chemical processing.

Camcorders
A camcorder is a portable electronic device for recording video images and audio onto an internal storage device. The camcorder contains both a video camera and (traditionally) a videocassette recorder in one unit, hence its portmanteau name. This compares to previous technology where they would be separate.

Broadcasting:
Broadcasting is the distribution of audio and/or video signals which transmit programs to an audience. The audience may be the general public or a relatively large sub-audience, such as children or young adults. There are wide varieties of broadcasting systems, all of which have different capabilities. The

largest broadcasting systems are institutional public address systems, which transmit nonverbal messages and music within a school or hospital, and low-powered broadcasting systems which transmit radio stations or television stations to a small area. National radio and television broadcasters have nationwide coverage, using retransmitted towers, satellite systems, and cable distribution. Satellite radio and television broadcasters can cover even wider areas, such as entire continents, and Internet channels can distribute text or streamed music worldwide. Television and radio programs are distributed through radio broadcasting or cable, often both simultaneously. The term "broadcast" was coined by early radio engineers from the Midwestern United States. Broadcasting forms a very large segment of the mass media. Broadcasting to a very narrow range of audience is called narrowcasting. Recorded broadcasts and live broadcasts

One can record and live broadcasts. The former allows correcting errors, and removing superfluous or undesired material, rearranging it, applying slow-motion and repetitions, and other techniques to enhance the program. However some live events like sports telecasts can include some of the aspects including slow motion clips of important goals/hits etc in between the live telecast.

A disadvantage of recording first is that the public may know the outcome of an event from another source, which may be a spoiler. In addition, prerecording prevents live announcers from deviating from an officially-approved script, as occurred with propaganda broadcasts.

An overview of current technology trends in ICE (Information, Communication and Entertainment) and digital convergence and future of media - What Next?

The key factor of change in ICT (Information and Communication technologies) today is digital convergence. Convergence is bringing a fundamental modification not only to the ICT sector but also to the way we use ICT across society and the economy. We are on the verge of a whole new wave of ICT applications and services that will transform the way we live, do business and spend our leisure time. The ICE (Information, Communication and Entertainment) industries are being shaped by the constant drive of convergence and the commoditization of products and services. These drivers are placing tremendous pressure on telecom, media, software and IT companies around the globe. In order to plan a successful path, the various players will need to recognize the need to adopt new business models that reflect emerging ways in which consumers want to access and pay for content.

Digital convergence is mainly driven by the TIME industries (Telecommunication, IT/Internet, Media and Entertainment) and provides new, innovative solutions to consumers and business users. Based on digital technologies and digitized content it encompasses converged devices (such as smart phones, laptops, internet enabled entertainment devices), converged applications (e.g. music download on PC and handheld) and converged networks (IP networks).

Convergence describes a process change in industry structures (Computer Industry, Information/Content Industry, & Communication Industry) that combines markets through technological and economic dimensions to meet merging consumer needs. This process change takes place, inter and intra industry, in the following structure:

- Computer Industry •S
- Computers •S
- Software •S
- Interfaces

Digital convergence brings together the separate worlds of audio, video, data and voice communication services. Already today we can access the same services and content (e-mail, music television) using different terminals over different types of networks. The borders between fixed-line and wireless mobile networks are disappearing. In the convergent world, consumers will be in control of their entertainment and media content; what they want, when they want it, and where they want it. The process by which all separate media become digital and come to be delivered via the global network is known as Digital Convergence.

Information/Content Industry

Databases
Information Services
Audio-Visuals products
Films
Music
Photos
Communication Industry
PSTN
Cable Networks
Broadcasting
Mobile networks

Digital convergence is increasing the importance of content and services in the ICT sector. In many European countries, operators already offer triple-play services, a bundle of voice, internet and video services. Triple Play service is a marketing term for the 3 services: high-speed Internet, Video (TV) and telephone service - all over a single broadband connection. The main current examples of converged services concern Voice and Television over the Internet Protocol. Voice over IP, as we know it, is transforming telephony and will soon be delivered over mobile phones. Already today, there are more radio stations on the Internet than radio stations broadcasting over the airwaves. The combinations of these technologies are unleashing a wealth of opportunities, blurring the boundaries between market sectors, and proving a powerful driver for innovation and change in a global market. In the future, almost every device will be a network device. Some of these devices will be large and immobile, like movie or television screens. Others will be small and portable, like wallets, watches, or cellular phones. All will be hooked up to the global network.

Information, Communications and Entertainment ("ICE") represents the converging industries of communications, media, software and the Internet, electronics and travel, leisure and tourism. (KPMG, 1996) defines that convergence entails the coming together of content, infrastructures, the storage and processing capabilities of computers, and consumer electronics. Convergent technologies, which blend multiple streams of information into a single presentation on a single device, are central to the future growth of IT industry. Digital networks redefine what kinds of infrastructure are possible under the sweeping trend of convergence and highlight the need for privatization and regulatory changes commensurate with such developments. Convergence of technologies takes place at the transmission level, the terminal level and the service level. IT convergence began with the digitization of switching and transmission and the utilization of Intelligent Network (IN) platforms.

The result is a Big Bang of convergence, and it's likely to produce the biggest explosion of innovation since the dawn of the Internet. As these technologies evolve over the next decade, a new digital world will emerge. Analysts predict that these nascent networks will speed up by an average of 50% a year, the historic norm. As networks grow and chips continue to strengthen, companies will work madly to come up with winning products and services. Within the next five years, industry analysts say, practically every machine in the wide realm of communications -- every gadget that sings, talks, beams images, or messages -- will sport a powerful computer and a network connection. And every bit of digital information, whether it's a phone call, a song, a Web page, or a movie, will flow among these machines in the very same river of data.

Think of the force of digitization as the "mother of all forces" the underlying tectonic shift that is creating change everywhere. New media rely on digital technologies, allowing for previously separate media to converge. Media convergence is defined as a phenomenon of new media and this can be explained as a digital media." The idea of 'new media' captures both the development of unique forms of digital media, and the remaking of more traditional media forms to adopt and adapt to the new media technologies."

Convergence captures development futures from old media to new media. It is the fundamental building block of tomorrow's world

Convergence, its nature and levels of convergence

The ability of different networks and user equipment to carry similar services & the ability of one network or user equipment to carry different services. Handsets that carry voice, data and video services. Cellular networks carrying streaming video in broadcast mode and broadcasters being able to provide data services on unused portions of their spectrum.

Towards multi channel environment
- Same services via different networks and technologies
- Same terminals use different networks
- Same customized services in different countries

Possibility of various networks platforms to provide practically the same set of services.
Unification of user's devices, such as telephone, PC and TV set in the form of a single terminal.
Convergence is the coming together and integration of two or more technologies. Digital television, computers and telecommunications being combined is an example of convergence.

Device Convergence
- Endpoints (devices) are converging.
- Integrated service platform for phone, Internet, music, video games, and PDA functions allows end users to access a variety of services that would require multiple terminals previously.
- Computer with multimedia player/soft phone.
- GSM Wi-Fi handsets.
- GSM DVB handsets

Network Convergence
- Convergence of service platforms.
- The integration of voice, data and video networks' transport and signaling infrastructures in a single unified networking system, often referred to as a "multi service network"
- Broadband wireless technologies delivering both fixed and mobile services.
- IP multimedia subsystem (IMS), an enabling service platform which offers to support both fixed and mobile services.

Services Converged
- Service providers have the capabilities to provide different services that could only be provided by one service provider previously.
- Cable TV service provider deploying VOIP to offer voice service.
- 3G service provider offering broadband internet access.
- Digital terrestrial TV offering mobile data service.

Media convergence?
- Convergence of media occurs when multiple products come together to form one product with the advantages of all of them.
- Media Convergence is gathering and dissemination of news across a multi-media platform." - Traci Mitchell.
- Media Convergence is the process of combining and presenting of different media (multimedia) into a single delivery system. The Internet is an example of convergence.
- Data and Voice Services - from separate voice and data services to multimedia applications (IP-Telephony, Web Contact Centers)
- Fixed and Mobile Networks and Services - from separate ones to the single infrastructure: CAMEL, VHE, IPv6, IMS
- Public and Corporate Networks – from dedicated networks to open networks

- Phone, TV and Computer Terminals – from separate devices to combined multimedia terminals
- Broadcasting services-from broadcasting services to Web-based TV services: IATV, VoD, WebTV
- For the consumer: more features in less space.
- For media companies: remaining competitive in the struggle for market dominance.
- An ever-wider range of technologies are being converged into single multipurpose devices.

Convergence within Journalism
In the converged media organizations of the future, the journalists who best understand the unique capabilities of multiple media will be the ones who are most successful, drive the greatest innovations, and become the leaders of tomorrow, (Kawamoto, 2003: 72)
Therefore it is important for journalists to understand what convergence within the media is and how it affects journalism.
Kawamoto describes convergence as the melding or blurring of historically discrete technologies and services. (Kawamoto, 2003: 4) Convergence is occurring on many levels. Convergence within content, within the newsroom, within the way news is disseminated and within the way information is collected.
A good example of where convergence within journalism has been successful is Media General in Tampa. The company combined three of its branches newspaper Tampa Tribune, television station WFLA-TV and web site TBO.com- into the one building. The television and news staff still operates independently but share resources and communicate with one another. The branches all cross promote each other, the website has its choice of content from both the news and television branches and reporters from the tribune are often interviewed by the television station for its newscasts (Thelen, 2002: 98).Different journalists mean different things when they talk about convergence. But generally, convergence takes three forms.

Newsroom convergence
In a converged newsroom, journalists from different media (TV, radio, newspaper, online) all share the same workspace instead of occupying separate offices in separate buildings. One of the most notable examples is the News Center in Tampa, Fla. In 2000, the staffs of the Tampa Tribune, WFLA-TV and TBO.com — all owned by Media General Inc. — moved into a huge $40-million facility with a TV studio on the first floor and a joint newsroom above it. Sharing a newsroom encourages cross-platform cooperation. When editors from different media attend the same meetings and plan coverage together, they can steer each story to the format that tells it best.

Newsgathering Convergence
Here, reporters, editors and photographers collaborate on story production. In its simplest form, news crews might share a helicopter to report on a flood. A TV newscast might borrow one of the newspaper's graphics. A TV reporter might cover an event for broadcast, and then write a longer story for the Web site. With training, print reporters learn to deliver TV news reports; photojournalists shoot photos, video and conduct interviews. In other words, journalists multitask in multimedia, whether it's one story produced by a team of TV, print and online staffers — or one reporter preparing variations of one story for several different media.

Content convergence
This is where the final story is presented in multimedia form, combining text, images, audio, video, blogs, pod casts, slideshows — the options are continually expanding. At present, content convergence is still in its infancy, but you can glimpse the future on innovative Web sites. Imagine, years from now, a new hybrid medium combining the audio and video of TV, the responsiveness and resources of the Web, the portability and print quality of newspapers. Editors and reporters will become "content producers" trained to choose the most effective, entertaining storytelling techniques from a vast menu of multimedia options.

Media convergence
Text + photos + audio + video + graphics = multimedia.

Suppose you decided to profile, a brilliant painter/composer. Which medium, or media, would produce the best story?   To display his paintings, you'd use photographs. To present his music, you'd use audio recordings. To show him at work — conducting a rock band or painting — you'd use video footage. To explain the meaning and impact of this art, you'd use text. In short, to create the ideal profile, you'd need multimedia, Cross-platform journalism, Media convergence. Whatever you call it, it's an idea whose time has finally come. Stories once trapped on paper can now be posted online; stories once confined to text and photographs now integrate audio, video and interactivity. Technological innovations are transforming 21st-century journalism. Your job, your newsroom, even the stories you write will soon change dramatically. Kawamoto makes a prediction about where convergence will take journalism over the next decade:

1- Content management systems will be created within media companies that will be able to store content in digital formats allowing it to be delivered relatively easily to different platforms.

2- Wireless internet access will be proliferated either through cellular telephone systems or through more localized wireless networks that in turn connect to the wired internet.

3- Television sets will transform to take on more and more attributes of computers. Technology convergence will enter the living room by allowing televisions to connect with the internet creating the ability for viewers to receive and store digital content, and the ability for viewers to interact with content on the screen. This area has already begun to take off with the invention of digital broadcasting and products such as TiVo.

4- A new generation of portable devices will be created that come closer to replicating the advantages of paper by being lighter and having longer battery life. These devices could be descendants of today laptop computers, personal digital assistants or cellular phones.

Vision of a Converged World
- Consumers use a single terminal point to access any desired information available on any network without limitations.

- Media convergence is prompted by the development of information technology.

- Convergence will lead to:
- Reformulation of media economics and politics
- Reorganization of media companies
- Radically change media environments in the name of digitalization

- With the advent of IP technology, competition in telecom services becomes a global phenomenon and is no longer confined to within the national or regional boundary.

- The potential for change will be felt in different ways and at different levels (e.g. technology, industry, services and markets).

- Regulators and the policy makers need to put in place a forward looking and adaptable regulatory framework, or they will be left behind and become irrelevant.

- The unrestricted exchange of information through transmission of images, text, voice or other forms of data, the info-communications infrastructure will improve the productivity of knowledge-based activities and help to bring about an Information Society.

- Efforts will continue to be needed to equip workforce with the skills which the Information Society requires.
- This will open opportunities and challenges especially to the developing countries.
- The global nature of communications platforms today, especially the Internet, is providing a key which will open the door to the further integration of the world economy.

- Telecommunications, media and information technology sectors are seeking cross-product and cross-platform development as well as cross-sector share-holding.

Examples of new products and services being delivered include:
- Home-banking and home-shopping over the Internet
- Voice over the Internet
- E-mail, data and World Wide Web access over mobile phone networks, and the use of wireless links to homes and businesses to connect them to the fixed telecommunications networks
-

More examples:
- Data services over digital broadcasting platforms; iTV
- On-line services combined with television via systems such as Web-TV, as well as delivery via digital satellites and cable modems;
- Web casting of news, sports, concerts and of other audiovisual services.

Advantages of Convergence
Technology is so positive, it allows for interactivity-real time-and promotes public dialogue and communication." -Larry Pryor
Convergence is collaborating in a way that best tells the news."

Challenges for Convergence
Market

∗ Convergence phenomenon requires adaptation of new approaches to be applied to issues of market entry; licensing; customers; pricing.

Training

∗ Convergence reporters must be trained to report in multiple media. They should be multi skill able to work in a converged media environment. If necessary, a convergence reporter might file a brief for the Web, edit video for television and then write a story for the next day's paper. Convergence reporters often specialize in a single medium, but their familiarity with other forms of storytelling gives them an edge in today's ever-changing media landscape.

Digitalization?
Digitization is the process of converting information into a digital format. In this format, information is organized into discrete units of data (called bits) that can be separately addressed (usually in multiple-bit groups called bytes). The process by which all these separate media become digital and come to be delivered via the global network is known as Digital Convergence.

Digital Divide
The term 'digital divide refers to the gap between those people with effective access to digital and information technology, and those without access to it. It includes the imbalances in physical access to technology, as well as the imbalances in resources and skills needed to effectively participate as a digital citizen. In others words, it's the unequal access by some members of the society to information and communications technology, and the unequal acquisition of related skills. Groups often discussed in the context of a digital divide include socioeconomic (rich/poor), racial (white/minority), or geographical (urban/rural). The term global digital divide refers to differences in technology access between countries.
Many expressions were used to describe the dichotomy of people's participation or not in the Information Society such as information poor/ rich or have/ have not, but the most widely spread now is the "Digital Divide". Used by most international organizations, this expression has become the reference term. At first, some narrower definitions of the digital divide were focused only on access to computers and Internet but access alone does not bridge the technology gap. As a result, definitions are much wider today.

"The term **'digital divide'** describes the fact that the world can be divided into people who do and people who don't have access to - and the capability to use - modern information technology, such as the telephone, television, or the Internet. The digital divide exists between those in cities and those in rural areas. It also exists between the educated and the uneducated, between economic classes, and, globally, between the more and less industrially developed nations".

• "The digital divide is the "Differences based on race, gender, geography, economic status, and physical ability:

• In access to information, the Internet and other information technologies and services
• In skills, knowledge, and abilities to use information, the Internet and other technologies".

Access:
When looking at access, you can see that the Internet is expanding its territory so rapidly that soon you might be able to get it anywhere and in multiple forms (you can already find it in mobile phones or digital Televisions). However, today it is still mainly through computers that one can access the web. Either you can buy your own computer to access
Internet but this is not affordable for all. Governments aware of this financial problem are pushing for installation of computers in public spaces, such as libraries or post offices. The market also tries to answer this new demand by the creation of cyber cafés. -Their success relies on fast access connections at low price and a 24 hours opening and clearly show that there is a demand for such access. These different approaches might well be part of the answer to bring access for all. A study done in the UK shows that the success of bringing a new audience to the Internet primarily relies on the social environment, as well as on the staff support you can get. Therefore, it is challenging the value of attempting to extend access via unstaffed Internet access points (Milne, 2000, p57).

Necessary knowledge to use Internet:
There are user's needs for information and training in order to participate in the Information Society, and this is definitely another major risk of exclusion. Learning the potentialities of the information and communication technology may be a bigger barrier for new users than lack of technical access. For example, people who are not computer literate have no chance to take advantage from the Internet. The education system must be the main provider of this new knowledge.
Moreover the fantastic pace of evolution of information technology obliges any participant in the Information Society to continually improve one's knowledge; learning does not stop once one has completed a training course. In addition, mastering the Internet, one needs formal training, but knowledge also develops through learning by doing (Milne2000); one can improve it by trying things out, sharing one's problems and seeing what others are doing. All this will contribute to a lifelong learning society where people will have to continuously learn to master these constantly changing technologies, and therefore to be able to participate in their society.

Content
Finally to participate, people must have access to information that is relevant for them; the contents can be found on the Web will determine the success of this participation. Currently on the web, more websites are in English (bridges.org, 2001, p20). The dominance of English, and especially US content, makes it less useful to other countries. English speakers were the first users of Internet, so the predominance of their language was natural. So there is a necessity to have more variety in languages on the Web. Additionally, non-English countries produce less local content making the Internet less relevant to their lives. It is also necessary that users become content creators as well by the creation of their own websites. By doing that, they participate in the construction of the Web and produce sites that might interest others.

There are two different forms of Digital divide, one between countries but also between groups within a country. Bridges organization extensive report puts it in these terms "Real disparities exist in access to and use of information and communications technology (ICT) between countries (the "international digital divide or global digital divide") and between groups within countries (the "domestic digital divide")".

International Digital divide:
The International Digital Divide, also sometimes call the global DD, is easy to understand but hugely difficult to overcome. Firstly, this divide is an infrastructure problem. For example, in all of Africa, there are fewer phone lines than in New York City alone and owning a phone is seen as a luxury item. The costs are enormous and this is why developing countries need support otherwise they might not even be able to give access to their population. The structural problem is not the only one.
In developing countries, the majority of people besides wealthy individuals cannot currently afford the technology, even when it is available, so usage remains low. Poverty is the greatest barrier to Internet growth in Developing countries. Costs to access Internet are in comparison to developed countries much higher and therefore unaffordable.

Domestic Digital Divide
The domestic digital divide is more complex to define, because multiple factors are involved. Access within countries can be looked according following socio-economic factors:

- Age
- Income
- Geographical location
- Education
- Gender
- Disability

Income: It is interesting to notice that socially excluded people have mostly a low income and once more, this economic factor could affect their participation in the Information Society. Income is the first factor of exclusion, because even if computer prices and access costs drop by a large margin, they would still be inaccessible to poor people who need to cover their basic needs first.

Age: There is a normal difference because ICT are easily used and adopted by younger generations and they benefit from their school training.

Geographical gap: there is a difference in use between different parts of same countries. It is easier to get an Internet access in cities and this trend might not be changed soon.
In Fact, the new fast access technologies to Internet such as the optical fibre for example, are mostly available in urban areas and there is a risk that this divide increases. This is why there is a necessity of national planning at a country level to insure that all areas have the same possibilities.

Education: is closely correlated with employment and income. Those with higher levels of education are more likely to have ICT at home and at work. The less educated people show least interest in getting on-line, may be because they do not see the interest for them. All these questions related to the domestic Digital Divide are mainly studied in developed countries but there is evidence indicating that these inequalities are far more pronounced in developing country where small elite own everything and cumulate the advantages leaving most of the population with very little.

Disability: Internet and Information Technologies are promising for people with disabilities because it can assist them in overcoming their handicaps, however the potential may not be realized if they cannot afford assistive technologies or if accessibility of equipment or web-content is not ensured.

Gender: Women have less access to the IT use and skills. Also Working women have lower levels of IT use and skills than working men.

Concrete examples of the global digital divide

In the early 21st century, residents of First World countries enjoy many Internet services which are not yet widely available in Third World countries, including:

Affordable and widespread Internet access, either through personal computers at home or work, through public terminals in public libraries and Internet cafes, and through wireless access points; E-commerce enabled by efficient electronic payment networks like credit cards and reliable shipping services;   Virtual globes featuring street maps searchable down to individual street addresses and detailed satellite and aerial photography;

Online research systems like LexisNexis and ProQuest which enable users to peruse newspaper and magazine articles that may be centuries old, without having to leave home; Price engines like Froogle which help consumers find the best possible online prices and similar services like Shop Local which find the best possible prices at local retailers; Electronic services delivery of government services, such as the ability to

Pay taxes, fees, and fines online.

Prospects and challenges of online journalism

• Speed vs. Accuracy

When print was the only medium available to the journalists ample time was available for research, publishing and editing. Indeed, only a few publishers had access to printing press with which to make the product. As mass media progressed, new forms of print and broadcasting appeared, time allowed for journalistic expression shrank. Internet allows news to move at tremendous dispatch limited only by the speed of electron or electromagnetic wave. The immediacy brought by the online environments everyone is a potential publishers, allows for even less care by the journalist and editor.

The speed and anonymity provided by the internet can play fast but loose with journalistic ethics and can affect accuracy and credibility.

Accuracy -- to get the facts and context of a story right -- is a fundamental norm of ethical journalism. Inaccurate reporting undermines important news stories and can mislead the public. Accuracy is the indispensable value in journalism and must not be compromised in Cyber Journalism.

Accurate reporting has never been easy, given journalism's deadline- driven nature. But today, accuracy is further challenged, as news-making adopts the internet medium.

One of the greatest benefits of online journalism is its ability to reach millions of people almost instantaneously. But the pressure to keep news current – online within minutes of an event's occurrence – can put at risk the accurate reporting of even the most ethically-conscious journalist. Adding to the pressure is the public's increasing demand to see news as it happens. So it is certainly extremely – and increasingly – challenging. A balance is necessary between speed and accuracy. The public demands it, and so do journalistic codes of ethics. The consequences of disseminating falsehoods can be equally serious as the consequence of delayed news-dissemination.

• Trained and multi skill able reporters

Another challenge towards online journalism is the convergence. Convergence reporters must be trained to report in multiple media. They should be multi skill able to work in a converged media environment. If necessary, a convergence reporter might file a brief for the Web, edit video for television and then write a story for the next day's paper. Convergence reporters often specialize in a single medium, but their familiarity with other forms of storytelling gives them an edge in today's ever-changing media landscape. Furthermore, there is so much information available online that it can be difficult working out where to start and where to stop gathering it. With the change to a much broader reliance on the Internet and web for news, it will become increasingly important for journalists to be multi skilled able to work in more than one medium, and preferably in several, in what has become known as a converged media environment.

From gate keeping to gate watching

For a long time, gate keeping has provided a dominant paradigm for journalistic news gathering and news publishing in the mass media, both for journalists' own conceptualization of their work and for academic studies of this mediation process. In media such as print, radio, and TV, with their inherent structures of available column space, air time, or transmission frequencies, it is necessary to have established mechanisms which keep watch over these gates and select events to be reported according to specific criteria of newsworthiness. Gate keeping is the process by which selections are made in media work, especially decisions whether or not to admit a particular news story to pass through the "gates" of a news medium into the news channels. Lately, however, the effectiveness of gate keeping has been questioned from a number of perspectives: on the one hand, increasingly 'the practice of journalism is being contaminated from outside. The "fourth estate" is in danger of being overwhelmed by the "fifth estate", the growing number of "PR merchants and spin doctors" influencing the news agenda' (Turner et al. 2000: 29, following Franklin) and undermining the reliability of the gate keeping process itself. This is also related to the fact that ever since the emergence of 24-hour broadcast news services and even more so since the advent of online news the reporting speed required of news services has also increased steadily, which has made gatekeepers even more likely to rely on prepared material from this 'fifth estate' rather than spending time and money on their own, independent research.

Further, the addition of the World Wide Web to the media mix has meant that news consumers are now far less reliant on what passes through the gates of the mainstream news organizations, but can bypass these altogether and turn directly to first-hand information providers. Technological advances are opening up opportunities for individuals to express themselves to a wider audience. The consumer is turning producer as the affordability and ease of operation of digital recorders, still cameras and DVCs make confident non-journalists to record and transmit coverage of news events.

This disintermediation has meant, therefore, that online the gates are now located with the information providers (ultimately, with anyone who publishes a Website with potentially newsworthy information) as well as with the end user.

Thus, for the online context gate keeping may no longer be the most appropriate newsgathering paradigm; instead, it is replaced with an alternative approach to gate keeping altogether that is gate watching. This practice of monitoring the content of external sites and alerting the community to new developments can usefully be described as 'gate watching' I: users-as-journalists watch the gates of other publications to see what material passes through them – but they have no ability to prevent that material from being published, or to keep other users from reporting material which they themselves might have considered less than newsworthy.Gatewatching is a significant modification to the power structures of journalism; the focus has shifted away from a strict selection of 'all the news that's fit to print' (leaving anything else unpublished), to the alerting of readers to the most relevant of information from all the content which is currently available. Gate watchers fundamentally publicize news (by pointing to sources) rather than publish it (by compiling an apparently complete report from the available sources). While maintaining the benefits of gate keeping (specifically, the ability to provide readers with an overview of current key news), this addresses several problems inherent in the gatekeeper approach:

- Stories have the potential to be more deeply informative, since readers are able to explore the source materials directly, and in full;
- The speed of news reporting increases since new stories can be posted as soon as source information is found anywhere on the Net, without a need to wait for journalists to file their stories or gatekeepers to complete their evaluation;

the newsgathering process becomes more transparent, and readers are not prevented from checking a report's sources for themselves, but instead encouraged to do so; the news gatherer's personal bias may still affect their own report, but since readers are more likely to consult original sources this bias will have a reduced effect; Gate watchers do not require significant journalistic skills, but instead need to have more general online research skills.

This is linked to the new media-driven shift from news as information to news as myth. Some downsides or challenges are clearly visible:

- Gate watching relies almost entirely on the availability of existing news sources
- It evaluates and publicizes news, but does not create news reports itself.
- Misinformation and bias in the original sources will therefore be passed through to the reader.
- Gate watching also requires more work of the reader, who (in line with general trends for online audiences) really must be an active user rather than a passive recipient of news, and takes on some of the role of the traditional gatekeeper-journalist themselves: by passing through the gates pointed out by the gate watcher, the user in their search for information and their evaluation of what they find becomes their own gatekeeper. But people in developing countries are not much aware and are passive users.
- Finally, gate watching also continues to rely on the gate watchers' intuition of what news topics might interest their users. News as myth is myth, after all – but at the very least the plurality of gate watcher sites enables a plurality of divergent myths. 'People are increasingly able to seek out stories and storytellers who challenge and reject views of the state scribes [i.e., of the major political and economic interests].
- People tell each other news as myth. News as myth is myth, after all – They must have the ability to find others who share and confirm their views of the world.
- People must have the research skills and their ability to make the most of electronic networks and cheap digital equipment for news production and distribution.

• Ethical and legal challenges

Following re the ethical and legal challenges of online journalism and must not be compromised to maintain the issues of credibility and reliability.

Accuracy:
Cyber journalists must deliver error-free content. They must ensure that their content is a verifiable representation of the news. Those who depend upon them for information should never be intentionally mislead. Journalist must be accurate with their target audiences. Sometimes it's OK to print information that they haven't confirmed with multiple sources. Just make sure that you label it as such. Never ever publish information that you know not to be true.

Corrections:
Cyber Journalists should admit mistakes and correct them promptly and prominently. Correct what we get wrong as promptly and as clearly as possible. Establish systems to enable readers to alert us to mistakes and hold us accountable.

Copyrights and never plagiarism:
Journalist must value original thought and expression. Their work should be free from fraud and deception. That includes plagiarism and fabrication. They must attribute content and honor copyrights. It includes not just cutting and pasting whole articles, but copying photos, graphics, video and even large text excerpts from others and putting them on your web page as well. If they want to reference something on another website, link it instead. If they are concerned that the page you're linking to will disappear, give your readers the name of the publication that published the page, its date of publication and a short summary of its content. Just like news reporters used to reference other content before the Web.

Identify and link to sources:
Cyber journalist should act honorably and ethically in dealing with news sources. He/she should Identify and link to sources, whenever feasible. The public should entitle to as much information as possible on sources' reliability. He/she should always question sources' motives before promising secrecy. Clarify conditions attached to any promise made in exchange for information.

Privacy:
Recognize that private people have a greater right to control information about themselves than do public officials and others who seek power, influence or attention. Only a dominant public need can justify interruption into anyone's privacy. Be sensitive when seeking or using interviews or photographs of those affected by tragedy or grief.

Distortion of the content of photos and videos:
Never distort the content of photos without disclosing what has been changed or digitally alter photographs to mislead the audience. Image enhancement is only acceptable for technical clarity. Montage and photo illustrations should be label. Any attempt to confuse readers or misrepresent visual information is prohibited. In photographing news, do not stage or restructure events. Similarly, in editing video, do not insert words or splice together statements made at different times so as to suggest that they were uttered at the same time. Pieces of an interview or address generally should be presented in the order that they occurred. If an interview is presented in question-and answer format, the questions must be presented as they were asked. Reaction shots may not be altered after the fact. Staging is prohibited.

Distinguish factual information and commentary from advertising:
Cyber journalists should distinguish factual information and commentary from advertising and avoid hybrid or mixture that blurs the lines between the two.

Distinguish between advocacy, commentary and factual information:
Even advocacy writing and commentary should not misrepresent facts or context of the news event. So, Cyber journalist should strive to distinguish between advocacy, commentary and factual information.

Define and clearly Label, news and opinion:
Journalists and news organizations should understand the necessity of defining, and clearly labeling, news and opinion. In an open environment like the Web, consistency in presentation can help the reader see clearly where the lines are drawn between news and opinion. Whenever journalists or organizations blur or blend those roles, they need to recognize the risk and consider the consequences.

Linking decisions:
The linking decision requires more specific considerations, including the relevance and reliability of the material that might be linked. Linking decisions should be based on serving the audience with as accurate and as complete a picture of the world as possible. Such decisions should not be restricted by commercial concerns about sending customers to others' sites. Linking is at the core of the Web experience, tying together content that allows readers to discover unexpected treasures and contextual information that can't comfortably fit into print and broadcast paradigms. But linking also comes with challenges for media organizations. Until now, content was easily classified -- it was in the paper or it wasn't; it was broadcast on the air or it wasn't. Linking has created a netherworld in which media companies can point to sites without assuming responsibility for their veracity or standards. So how do media sites embrace linking without compromising their core values?

Principles & Values
• A link to an external site does not signify an endorsement of that site or its point of view. It is merely a signal to the reader that there may be content of interest on the destination site.
• Despite this, media sites should make it clear to their readers -- in the user agreement, site guidelines or via some other method – that there's a difference in standards between the content that resides on their own site and the content they link to.
• Because of the spider-like nature of the Web, media sites can't be expected to apply even these relaxed standards to the content of sites that are linked to from sites we link to (the two-click rule).
• When readers put their own links to content in message boards, blog posts, etc., those links should be considered user-generated content and subject to the same controls.
• All media sites should to link to external sites. Linking off-site is an extension of your site's user experience and fosters a feeling of openness that's conducive to repeat visits. Trying to keep readers within just your site is a losing proposition.
• When linking, sites should not be forced into including links that support all sides of an issue. While news articles themselves should adhere to the traditional standards of fairness and accuracy, assuring balance in links run counters to the concept of providing only useful links to the reader.

Protocols
When deciding whether to links to other parts of your own site, ask yourself the following questions:
- Is this content being linked to relevant to someone who would be reading/viewing this content?
- When choosing whether to include a link to another site, ask yourself the following questions:
- Is the linked content relevant for someone who would be reading/viewing this content?
- Does the content being linked include content that could potentially fall within the area of defamation or libel?
- If the content being linked to falls outside the standards of your site, should you include notification of that fact (i.e., notify users of profanity, nudity, etc.)?
- Are you responsible when you link to something offensive?
- What about when that link links to something really offensive?

How do you decide when a user should be banned from publishing on your site?
This question raises a fundamental tension for journalists working in digital media: the need for a news organization to accommodate conflicting views at the same time it creates and maintains a community of civil discourse and debate. News organizations should create terms of service for users contributing content to the news organization's digital editions. Such terms cover such issues as the use of obscenity,

personal attacks, etc. in material published by non- staffers. Publishers should also be clear about the consequences for violating terms of service, e.g. immediate banning from further posting, suspension, etc.

Important Terminologies

ARPANet
(Advanced Research Projects Agency Network) the precursor to the Internet. Developed in the late 60's and early 70's by the US Department of Defense as an experiment in wide-area-networking to connect together computers that were each running different system so that people at one location could use computing resources from another location.

Bandwidth
How much stuff you can send through a connection. Usually measured in bits-per-second (bps.)

Binary
Information consisting entirely of ones and zeros. Also, commonly used to refer to files that are not simply text files, e.g. images.

Bit -- (Binary DigIT)
A single digit number in base-2, in other words, either a 1 or a zero. The smallest unit of computerized data. Bandwidths usually measured in bits-per-second.

Blog -- (web LOG)
A blog is basically a journal that is available on the web. The activity of updating a blog is "blogging" and someone who keeps a blog is a "blogger." Blogs are typically updated daily using software that allows people with little or no technical background to update and maintain the blog.Postings on a blog are almost always arranged in chronological order with the most recent additions featured most prominently. It is common for blogs to be available as £SS feeds.

Blogosphere or Blogsphere
The current state of all information available on blogs and/or the subculture of those who create and use blogs.

Bps -- (Bits-Per-Second)
A measurement of how fast data is moved from one place to another. Broadband generally refers to connections to the Internet with much greater bandwidth than you can get with a modem. There is no specific definition of the speed of a "broadband" connection but in general any Internet connection using DSL or via Cable-TV may be considered a broadband connection. A Client program (software) that is used to look at various kinds of Internet resources.

BTW   (By The Way)
Shorthand appended to a comment written in an online forum. Byte A set of Bits that represent a single character. Usually there are 8 Bits in a Byte, sometimes more, depending on how the measurement is being made.

Client
A software program that is used to contact and obtain data from a Server software program on another computer, often across a great distance. Each Client program is designed to work with one or more specific kinds of Server programs, and each Server requires a specific kind of Client. A Web Browser is a specific kind of Client.

Cyberspace
Term originated by author William Gibson in his novel Neuromancer the word Cyberspace is currently used to describe the whole range of information resources available through computer networks.

DHTML   (Dynamic Hypertext Markup Language)

DHTML refers to web pages that use a combination of HTML, JavaScript, and CSS to create features such as letting the user drag items around on the web page, some simple kinds of animation, and many more.

DNS -- (Domain Name System)
The Domain Name System is the system that translates Internet domain names into IP numbers. A "DNS Server" is a server that performs this kind of translation.

Domain Name
The unique name that identifies an Internet site. Domain Names always have 2 or more parts, separated by dots. The part on the left is the most specific, and the part on the right is the most general. A given machine may have more than one Domain Name but a given Domain Name points to only one machine. For example, the domain names:

- matisse.net
- mail.matisse.net
- workshop.matisse.net

Can all refer to the same machine, but each domain name can refer to no more than one machine. Usually, all of the machines on a given Network will have the same thing as the right-hand portion of their Domain Names (matisse.net in the examples above). It is also possible for a Domain Name to exist but not be connected to an actual machine. This is often done so that a group or business can have an Internet e-mail address without having to establish a real Internet site. In these cases, some real Internet machine must handle the mail on behalf of the listed Domain Name.

Download
Transferring data (usually a file) from another computer to the computer you are using. The opposite of upload.

DSL -- (Digital Subscriber Line)
A method for moving data over regular phone lines. A DSL circuit is much faster than a regular phone connection, and the wires coming into the subscriber's premises are the same (copper) wires used for regular phone service. A DSL circuit must be configured to connect two specific locations, similar to a leased line (however a DSL circuit is not a leased line. A common configuration of DSL allows downloads at speeds of up to 1.544 megabits (not megabytes) per second, and uploads at speeds of 128 kilobits per second. This arrangement is called ADSL: Asymmetric Digital Subscriber Line. Another common configuration is symmetrical: 384 Kilobits per second in both directions. In theory ADSL allows download speeds of up to 9 megabits per second and upload speeds of up to 640 kilobits per second. DSL is now a popular alternative to Leased Lines and ISDN, being faster than ISDN and less costly than traditional Leased Lines.

Email -- (Electronic Mail)
Messages, usually text, sent from one person to another via computer. E-mail can also be sent automatically to a large number of addresses.

FAQ -- (Frequently Asked Questions)
FAQs are documents that list and answer the most common questions on a particular subject. There are hundreds of FAQs on subjects as diverse as Pet Grooming and Cryptography. FAQs are usually written by people who have tired of answering the same question over and over.

Finger
An Internet software tool for locating people on other Internet sites. Finger is also sometimes used to give access to non-personal information, but the most common use is to see if a person has an account at a particular Internet site. Many sites do not allow incoming Finger requests, but many do.

FTP -- (File Transfer Protocol)

A very common method of moving files between two Internet sites.FTP is a way to login to another Internet site for the purposes of retrieving and/or sending files. There are many Internet sites that have established publicly accessible repositories of material that can be obtained using FTP, by logging in using the account name "anonymous", thus these sites are called "anonymous ftp servers".FTP was invented and in wide use long before the advent of the World Wide Web and originally was always used from a text-only interface.

GIF -- (Graphic Interchange Format)
A common format for image files, especially suitable for images containing large areas of the same color. GIF format files of simple images are often smaller than the same file would be if stored in JPEG format, but GIF format does not store photographic images as well as JPEG.

Gigabyte
1000 or 1024 Megabytes, depending on who is measuring. Gopher Invented at the University of Minnesota in 1993 just before the l/l/feb, gopher was a widely successful method of making menus of material available over the Internet. Gopher was designed to be much easier to use than FTP, while still using a text-only interface. Gopher is a Client and Server style program, which requires that the user have a Gopher Client program. Although Gopher spread rapidly across the globe in only a couple of years, it has been largely supplanted by Hypertext, also known as WWW (World Wide Web). There are still thousands of Gopher Servers on the Internet and we can expect they will remain for a while.

HTML -- (Hypertext Markup Language)
The coding language used to create Hypertext documents for use on the World Wide Web. HTML looks a lot like old-fashioned typesetting code, where you surround a block of text with codes that indicate how it should appear. The "hyper" in Hypertext comes from the fact that in HTML you can specify that a block of text, or an image, is linked to another file on the Internet. HTML files are meant to be viewed using a "Web Browser".HTML is loosely based on a more comprehensive system for markup called SGML, and is expected to eventually be replaced by XML-based XHTML standards.

HTTP -- (Hypertext Transfer Protocol)
The protocol for moving hypertext files across the Internet. Requires a HTTP client program on one end, and an HTTP server program (such as Apache) on the other end. HTTP is the most important protocol used in the World Wide Web (WWW).

Hypertext
Generally, any text that contains links to other documents - words or phrases in the document that can be chosen by a reader and which cause another document to be retrieved and displayed.

Internet (Lower case I)
Any time you connect 2 or more networks together, you have an internet - as in inter-national or inter-state.

Internet (Upper case I)
The vast collection of inter-connected networks that are connected using the TCP/IP protocols and that evolved from the ARPANET of the late 60's and early 70's.The Internet connects tens of thousands of independent networks into a vast global internet and is probably the largest Wide Area Network in the world.

Intranet
A private network inside a company or organization that uses the same kinds of software that you would find on the public Internet, but that is only for internal use. Compare with extranet.

IP Number -- (Internet Protocol Number)

Sometimes called a dotted quad. A unique number consisting of 4 parts separated by dots, e.g.165.113.245.2Every machine that is on the Internet has a unique IP number - if a machine does not have an IP number, it is not really on the Internet. Many machines (especially servers) also have one or more Domain Names that are easier for people to remember.

IRC -- (Internet Relay Chat)
Basically a huge multi-user live chat facility. There are a number of major IRC servers around the world which are linked to each other. Anyone can create a channel and anything that anyone types in a given channel is seen by all others in the channel. Private channels can (and are) created for multi-person conference calls.

ISP -- (Internet Service Provider)
An institution that provides access to the Internet in some form, usually for money.

IT -- (Information Technology)
A very general term referring to the entire field of Information Technology - anything from computer hardware to programming to network management. Most medium and large size companies have IT Departments.

JPEG -- (Joint Photographic Experts Group)
JPEG is most commonly mentioned as a format for image files. JPEG format is preferred to the GIF format for photographic images as opposed to line art or simple logo art. It is an image format that allows for compression of the image when it is stored.

Kilobyte
A thousand bytes. LAN -- (Local Area Network).A computer network limited to the immediate area, usually the same building or floor of a building.

Login
Noun or a verb.

Noun: The account name used to gain access to a computer system. Not a secret (contrast with Password). Verb: the act of connecting to a computer system by giving your credentials (usually your "username" and "password")

Mail list (or Mailing List)
A (usually automated) system that allows people to send e-mail to one address, whereupon their message is copied and sent to all of the other subscribers to the mail list. In this way, people who have many different kinds of e-mail access can participate in discussions together.

Mashup
A web page or site made by automatically combining content from other sources, usually by using material available via £SS feeds.

Modem -- (Modulator, Demodulator)
A device that connects a computer to a phone line. A telephone for a computer. A modem allows a computer to talk to other computers through the phone system. Basically, modems do for computers what a telephone does for humans. The maximum practical bandwidth using a modem over regular telephone lines is currently around 57,000 bps.

Mosaic
The first WWW browser that was available for the Macintosh, Windows, and UNIX all with the same interface. Mosaic really started the popularity of the Web. The source-code to Mosaic was licensed by several companies and used to create many other web browsers. Mosaic was developed at the National

Center for Supercomputing Applications (NCSA), at the University of Illinois in Urbana-Champaign, in Illinois, USA. The first version was released in late 1993.

Netscape
A WWW Browser and the name of a company. The Netscape (tm) browser was originally based on the Mosaic program developed at the National Center for Supercomputing Applications (NCSA).

Network
Any time you connect 2 or more computers together so that they can share resources, you have a computer network. Connect 2 or more networks together and you have an internet.

NIC -- (Network Information Center)
Generally, any office that handles information for a network. The most famous of these on the Internet was the Inter NIC, which was where most new domain names were registered until that process was decentralized to a number of private companies. Also means "Network Interface card", which is the card in a computer that you plug a network cable into.

Node
Any single computer connected to a network.

Open Content
Copyrighted information (such as this Glossary) that is made available by the copyright owner to the general public under license terms that allow reuse of the material, often with the requirement (as with this Glossary) that the re-user grant the public the same rights to the modified version that the re-user received from the copyright owner. Information that is in the Public Domain might also be considered a form of Open Content.

Packet Switching
The method used to move data around on the Internet. In packet switching, all the data coming out of a machine is broken up into chunks, each chunk has the address of where it came from and where it is going. This enables chunks of data from many different sources to co-mingle on the same lines, and be sorted and directed along different routes by special machines along the way. This way many people can use the same lines at the same time. You might think of several caravans of trucks all using the same road system to carry materials.

Password
A code used to gain access (login) to a locked system. Good passwords contain letters and non-letters and are not simple combinations such as virtue7.

PDF -- (Portable Document Format)
A file format designed to enable printing and viewing of documents with all their formatting (typefaces, images, layout, etc.) appearing the same regardless of what operating system is used, so a PDF document should look the same on Windows, Macintosh, linux, OS/2, etc.

Portal
Usually used as a marketing term to describe a Web site that is or is intended to be the first place people see when using the Web. Typically a "Portal site" has a catalog of web sites, a search engine, or both. A Portal site may also offer email and other service to entice people to use that site as their main "point of entry" (hence "portal") to the Web.

Posting
A single message entered into a network communications system.

PPP -- (Point to Point Protocol)

The most common protocol used to connect home computers to the Internet over regular phone lines. Most well known as a protocol that allows a computer to use a regular telephone line and a modem to make TCP/IP connections and thus be really and truly on the Internet.

Protocol
On the Internet "protocol" usually refers to a set of rules that define an exact format for communication between systems.

PSTN -- (Public Switched Telephone Network)
The regular old-fashioned telephone system.

RSS -- (Rich Site Summary or RDF Site Summary or Real Simple Syndication)
A commonly used protocol for syndication and sharing of content originally developed to facilitate the syndication of news articles, now widely used to share the contents of blogs. Mashups are often made using RSS feeds.RSS is an XML-based summary of a web site, usually used for syndication and other kinds of content-sharing. There are RSS "feeds" which are sources of RSS information about web sites, and RSS "readers" which read RSS feeds and display their content to users.

RTSP -- (Real Time Streaming Protocol)
RTSP is an official Internet standard (RFC 2326) for delivering and receiving streams of data such as audio and video. The standard allows for both real-time ("live") streams of data and streams from stored data. SDSL -- (Symmetric Digital Subscriber Line)
A version of DSL where the upload speeds and download speeds are the same.

Search Engine
A (usually web-based) system for searching the information available on the Web. Some search engines work by automatically searching the contents of other systems and creating a database of the results. Other search engine contains only material manually approved for inclusion in a database, and some combine the two approaches.

SEO -- (Search Engine Optimization)
The practice of designing web pages so that they rank as high as possible in search results from search engines. There is "good" SEO and "bad" SEO. Good SEO involves making the web page clearly describe its subject, making sure it contains truly useful information, including accurate information in Meta tags, and arranging for other web sites to make links to the page. Bad SEO involves attempting to deceive people into believing the page is more relevant than it truly is by doing things like adding inaccurate Meta tags to the page.

Spam (or Spamming)
An inappropriate attempt to use a mailing list, or USENET or other networked communications facility as if it was a broadcast medium (which it is not) by sending the same message to a large number of people who didn't ask for it.

Spyware
A somewhat vague term generally referring to software that is secretly installed on a users computer and that monitors use of the computer in some way without the users' knowledge or consent. Most spyware tries to get the user to view advertising and/or particular web pages. Some spyware also sends information about the user to another machine over the Internet.Spyware is usually installed without a users' knowledge as part of the installation of other software, especially software such as music sharing software obtained via download.

Tag
The term "tag" can be used as a noun or verb. As a noun, a tag is a basic element of the languages used to create web pages (HTML) and similar languages such as XML. Another, more recent meaning of tag is

related to blogs where blogs and the postings they contain may be "tagged" which means to assign a keyword, such as "politics" or "gardening", this enables searches for "all the blog postings in the past week that are tagged 'prenatal care'"

TCP/IP -- (Transmission Control Protocol/Internet Protocol)
This is the suite of protocols that defines the Internet. Originally designed for the UNIX operating system, TCP/IP software is now included with every major kind of computer operating system. To be truly on the Internet, your computer must have TCP/IP software.

TLD -- (Top Level Domain)
The last (right-hand) part of a complete Domain Name. For example in the domain name www.matisse.net ".net" is the Top Level Domain. There are a large number of TLD's, for example .biz, .com, .edu, .gov, .info, .int, .mil, .net, .org, and a collection of two-letter TLD's corresponding to the standard two-letter country codes, for example, .us, .ca, .jp, etc.

Upload
Transferring data (usually a file) from a computer you are using to another computer. The opposite of download. URI -- (Uniform Resource Identifier) an address for s resource available on the Internet. The first part of a URI is called the "scheme". The most well known scheme is http, but there are many others. Each URI scheme has its own format for how a URI should appear. Here are examples of URIs using the http, telnet, and news schemes:
http://www.matisse.net/files/glossary.html telnet://well.sf.ca.us news:new.newusers.questions
URL -- (Uniform Resource Locator)
The term URL is basically synonymous with URI. URI has replaced URL in technical specifications.

Virus
A chunk of computer programming code that makes copies of itself without any conscious human intervention. Some viruses do more than simply replicate themselves, they might display messages, install other software or files, delete software of files, etc.

VOIP -- (Voice over IP)
A specification and various technologies used to allow making telephone calls over IP networks, especially the Internet. Just as modems allow computers to connect to the Internet over regular telephone lines, VOIP technology allows humans to talk over Internet connections. Costs for VOIP calls can be a lot lower than for traditional telephone calls. Because the IP networks are packet-switched this allows for vastly different ways of handling connections and more efficient use of network resources.

WAN -- (Wide Area Network)
Any internet or network that covers an area larger than a single building or campus.

Web
Short for "World Wide Web."

Web page
A document designed for viewing in a web browser. Typically written in HTML. A web site is made of one or more web pages.

Website
The entire collection of web pages and other information (such as images, sound, and video files, etc.) that are made available through what appears to users as a single web server. Typically all the of pages in a web site share the same basic URL, for example the following URLs are all for pages within the same web site:
http://www.baytherapy.com/
http://www.baytherapy.com/whatis/

http://www.baytherapy.com/teenagers/
The term has a somewhat informal nature since a large organization might have separate "web sites" for each division, but someone might talk informally about the organizations' "web site" when speaking of all of them.

Wi-Fi -- (Wireless Fidelity)
A popular term for a form of wireless data communication.

Worm
A worm is a virus that does not infect other programs. It makes copies of itself, and infects additional computers (typically by making use of network connections) but does not attach itself to additional programs; however a worm might alter, install, or destroy files and programs.

WAP
This stands for wireless application protocol. WAP is a secure specification that's allows users to access information instantly via handheld devices such as mobile phones, smart phones and some two-way radios to name a few. WML (wireless markup language) supports HTML and XML but has special elements that have been designed for the use on small screens and on-hand navigation devices with no keyboard. Wap enabled devices run what are called Micro-Browsers, they are designed to be able to deal with the low bandwidth restrictions that are found on wireless handheld devices.

Website
A Web site is a presence on the World Wide Web. All web sites contain a home page which is the first page that you would see when you arrive at the site. A web site will almost certainly contain more pages other than the home page, these are usually accessible by clicking on an area on the screen, called a link, that will then take you to another page.

JavaScript
JavaScript is a scripting language developed by Netscape to allow the design of interactive sites. JavaScript can interact directly with HTML code so it can add dynamic content to a web site. There are not many design issues with the use of JavaScript, the two main browsers Internet Explorer and Netscape Navigator do show some differences when the same script is run in both browsers, both are working to change these problems.

Web Browser
A web browser is a software application that is used to display web pages. The two most common web browsers are Netscape Navigator and Microsoft Internet Explorer. Both of these are capable of displaying text, graphics and multimedia information such as sound and video.

CSS
CSS which is short for Cascading Style Sheets, this is a feature added to HTML that allows web developers to have greater control over how web pages are displayed. The one set back when using cascading style sheets is when a page is displayed in Internet Explorer it can have a different look in Netscape Navigator, these two web browsers are the most common ones in use so both are creating a standard in which all pages will look the same.

WYSIWYG
WYSIWYG stands for what you see is what you get. This is a type of application used for designing a web page it will let you see on the monitor exactly what you would see when the document is finished. With some web design software you can place graphics and text on the screen and see what they would look like once the document was finished, so what you see is actually what you would get once completed.
The Difference between the Internet and the World Wide Web

Many people use the terms Internet and World Wide Web (a.k.a. the Web) interchangeably, but in fact the two terms are not synonymous. The Internet and the Web are two separate but related things. The Internet is a massive network of networks, a networking infrastructure. It connects millions of computers together globally, forming a network in which any computer can communicate with any other computer as long as they are both connected to the Internet. Information that travels over the Internet does so via a variety of languages known as protocols. The World Wide Web, or simply Web, is a way of accessing information over the medium of the Internet. It is an information-sharing model that is built on top of the Internet. The Web uses the HTTP protocol, only one of the languages spoken over the Internet, to transmit data. Web services, which use HTTP to allow applications to communicate in order to exchange business logic, use the Web to share information. The Web also utilizes browsers, such as Internet Explorer or Netscape, to access Web documents called Web pages that are linked to each other via hyperlinks. Web documents also contain graphics, sounds, text and video. The Web is just one of the ways that information can be disseminated over the Internet. The Internet, not the Web, is also used for e-mail, which relies on SMTP, Usenet news groups, instant messaging and FTP. So the Web is just a portion of the Internet, though a large portion, but the two terms is not synonymous and should not be confused.

Blogs and Blogging

A blog is a website in which items are posted on a regular basis and displayed in reverse chronological order. The term blog is a shortened form of weblog or web log. Authoring a blog, maintaining a blog or adding an article to an existing blog is called "blogging". Individual articles on a blog are called "blog posts," "posts" or "entries". A person who posts these entries is called a "blogger". A blog comprises text, hypertext, images, and links (to other web pages and to video, audio and other files). Blogs use a conversational style of documentation. Often blogs focus on a particular "area of interest", such as Washington, D.C.'s political goings-on. Some blogs discuss personal experiences.'

Like an online dairy. This can be about and be used for anything at all, it can be used for news, reviews, products etc for a business, organization etc. This is great as it helps the user stay in touch with the website with new and up to date information. These are very popular these days online. Each weblog develops an audience, and there's also camaraderie and politics between the people who run weblogs, they point to each other, in all kinds of structures, graphs, loops, etc. Blogs are typically updated daily using software that allows people with little or no technical background to update and maintain the blog. Postings on a blog are almost always arranged in chronological order with the most recent additions featured most prominently. Popular blog software's include Moveable Type, Blogger, or Word Press. Each blog is generally maintained by one to three people, usually one. Adding a blog to your web site makes it dynamic, drawing your visitors with return visits and encouraging their interaction. You can use blogs to build relationships. Blogs are quickly having a major cultural impact in politics, religion, business, and other areas.   The blogging phenomenon is a grassroots movement that may sow the seeds for new forms of journalism, public discourse, interactivity and online community. Thousands of working journalists produce bogs on the internet. Web logging will drive a powerful new form of amateur journalism as millions of Net users — young people especially — take on the role of columnist, reporter, analyst and publisher while fashioning their own personal broadcasting networks. It won't happen overnight, and we're now seeing only version 1.0, but just wait a few years when broadband and multimedia arrive in a big way.

With the rise of the blogging, people don't need to be bounded by those traditional filters anymore." The role of the journalist is to ensure that the voice of the people should be exposed. "Now, thankfully, the protesters who want to get their story out can bypass the media by using live audio or a Webcam to offer raw feeds during a live protest or forum. If you're a guy with a video recorder filming an event in a certain neighborhood and streaming it on the Internet and reporting it on your Weblog, you're practicing a straightforward kind of amateur journalism." It's instantaneous as "With a Weblog, you hit the send key and it's out there while in the print media if you are working for the weekly magazine or even daily, it seems like it takes time to see your work in print. It's the perfect throwaway journalism for our age."

Its interactive as it's a kick to get feedback from people you've never heard of who stumble on your Weblog. You don't have to necessarily tailor your work for a certain readership or demographic or for other marketing constraints or you don't have an editor to pitch the story to. Here's a media form that lets you write at any length about any issue you care deeply about and find of sufficient significance.

Definitions of Blog:
1- Blog is an online Journal. It is a frequently updated journal or diary usually, often hosted by a third party.

2- Short for "Web log," a specialized site that allows an individual or group of individuals to share a running log of events and personal insights with online audiences. Blogs with political or current-events themes have grown in popularity and allows for instant mass-audience commentary.

3- Web LOG is a journal kept on the Internet. This journal is often updated daily and contains all information that the person maintaining the BLOG (the blogger) wishes to share with the world.
4- A blog is information that is instantly published to a Web site. Blog scripting allows someone to automatically post information to a Web site. The information first goes to a blogger Web site. Then the information is automatically inserted into a template tailored for your Web site.

5- A BLOG is a publication of personal thoughts, experiences, and web links. It is updated frequently and is usually a mixture of what is happening in a person's life and what is happening on the web or in the media.

6- Blog is a frequent, chronological publication of personal thoughts and Web links. It offers readers the opportunity to reply to opinions and link to their own blogs.

7- It is a web-based publication consisting of periodic contributions, often in reverse chronological order.

8- Blog is a journal on the web, which may be pubic or private, individual or collaborative.

9- BLOG is short for Web log, and our Web pages that work as a journal that our normally updated daily. Blogging sites can provide excellent information on many topics, although content can be subjective.

10- Blog, short for web log, is an online diary written on a computer and posted on the World Wide Web.

11- A blog (short for weblog) is an online journal or diary of an individual's opinions and latest news that is updated regularly, in chronological order. Many blogs allow visitors to make comments, or "postings" in response to the blogger, or ask questions.

12- A blog (short for "Web Log") is basically a journal or personal diary that is available on the web. Blogs are typically updated daily using content management software that allows people with little or no technical background to update and maintain them.

13- It is an online diary where people can post messages and others may view and respond to the posts.

14- This is a term coming from the combination of the terms web log – it is a web page that serves as publicly accessible journal for the author. It can be formal or informal, is usually updated daily and reflects the personality of the author.

15- Blog is a web journal which is otherwise called as a "weblog". Entries are made on a regular or daily basis in a blog like an online diary. Some blogs have definite authors who disclose their names and some with anonymous authors who use a nickname.

16- Blogs have been identified as an increasingly popular source of online publication, especially regarding political information, opinion publication and alternative news coverage.

17- Weblog is a website with a series of postings. Blogs are easily written and published via a web form using free or low cost software. Many libraries use a blog format as their website.

18- A weblog is a hierarchy of text, images, media objects and data, arranged chronologically, that can be viewed in an HTML browser.

19- A blog is a user-generated website where entries are made in journal style and displayed in a reverse chronological order.

Components of Blogs:
1- Subject or Header: Subject or header is the blog's title.

2- Content or Body: The text is typed or pasted into the body.

3- Comments: The comment feature allows others to take part in a discussion regarding the contents of your blog. When visitors add their own two cents regarding the subject matter, a lively discussion can

proceed. Many bloggers and blog readers appreciate the sense of community blogs offer thanks to comments.

4- Time and Date Stamp: Because blogs are arranged in chronological order, it's important for visitors to note the time and date of each post.

5- Community:
The blog builds community around a common vision. Bloggers will often link to other blogs and websites as a way of illustrating a point or citing a source. This not only adds an air of credibility to the blog, but it also allows readers to visit blogs they might not have otherwise heard about. The blogger on the other end of the link is sure to appreciate the resulting boom in traffic. In fact a community made up of like-minded bloggers and commenters usually form as a result of the links. These bloggers will cite each other's blogs in their own and even discuss and analyze each other's topics.

6- Blogroll: A list of links to other blogs, often called a blogroll.

7- RSS feeds: that permits automatic notification of blog subscribers when new entries are posted.

8- An archive feature for older articles.

9- Blogs also focus on a particular topic such as a corporate vision, politics, religion, sports, or health.

Types of Blogs:

There are various types of blogs, and each differs in the way content is delivered or written.

1- By media type
A blog comprising videos is called a vlog, one comprising links is called a linklog, a site containing a portfolio of sketches is called a sketchblog or one comprising photos is called a photoblog. Blogs with shorter posts and mixed media types are called tumblelogs. An Artlog is a form of art sharing and publishing in the format of a blog, but differentiated by the predominant use of and focus on Art work rather than text.   A rare type of blog hosted on the Gopher Protocol is known as a Phlog

2- By device
Blogs can also be defined by which type of device is used to compose it. A blog written by a mobile device like a mobile phone or PDA is called a moblog.

3- By Genre
Some blogs focus on a particular subject, such as political blogs, travel blogs, fashion blogs, project blogs, niche blogs, classical music blogs, legal blogs (often referred to as a blawgs) or dreamlogs. While not a legitimate type of blog, one used for the sole purpose of spamming is known as a Splog. A Slog (Site or website log) is a section or 'slice' of a regular business website, which is seamlessly integrated within the regular website structure but is produced with blogging software.

Legal status of publishers
A blog can be private, as in most cases, or it can be for business purposes. Blogs either used internally to enhance the communication and culture in a corporation or externally for marketing, branding or PR purposes are called corporate blogs.

Blog search engines
Several blog search engines are used to search blog contents (also known as the blogosphere), such as blogdigger, Feedster, and Technorati. Technorati provides current information on both popular searches and tags used to categorize blog postings.

Blogging Communities and Directories
Several online communities exist that connect people to blogs and bloggers to other bloggers, including BlogCatalog and MyBlogLog. A collection of local blogs is sometimes referred to as a Bloghood.

Advantages and disadvantages of blogs:
Bloggers are people with attitude. They say there's a book inside everybody. The Web and blogs have let the book out! There has literally been an explosion of opinion. Now, we can hear all sorts of voices on the subject. It's true democracy at work. Talk of blogs is everywhere. Corporations, authors, and experts of every stripe are finding that blogs can be valuable marketing and PR tools. But blogs aren't for everyone. So before you join the blogosphere, consider both the advantages and the caveats.
The major advantage of blogs is that they are interactive and require no knowledge of coding by the content creators. The major disadvantage is that maintaining a successful blog requires skillful research, professional writing skills and a huge commitment of time and effort. There simply is no such thing as a perfect marketing tool, or an effortless way to build traffic to any site, including blogs. The 2004 Presidential race inaugurated the blog into the realm of serious marketing tool. From in-house communication, file sharing, and sheer speed of creation to interactivity with an audience, blogs are the cheapest, most effective content management tool yet created. There are more advantages than disadvantages to blogging, but the disadvantages will definitely cause your blog's failure and could even put you in the midst of controversy or see you mocked by other bloggers.

Advantages of blogs:
1- The consumer and citizen are potentially better informed and this can only be good for the long-term health of our societies and economies.
2- Blogs are an excellent way to share knowledge with others on both a personal and business level.
3- Blogging permits team communication in a group that is scattered geographically, with many advantages over traditional email.
4- Blogs have potential to help the organization develop stronger relationships and brand loyalty with its customers, as they interact with the 'human face' of the organization through blogs.
5- Blogs, in an intranet environment, can be an excellent way of sharing knowledge within the organization.
6- Blogs can be used to provide feedback, ideas, and concepts. They can be a positive way of getting feedback, and keeping your finger on the pulse, as readers react to certain pieces, suggest story ideas, etc.
7- Blogs can build the profile of the writer, showcasing the organization as having talent and expertise.
8- Blog software is often free and easy to use. A non-technical person can use a blog. Blog pages can be created quickly and updated easily by a non-technical person. Blog software is so user friendly that it frees you from the tyranny of the IT department. Even a technical clunk head can post content, images, photos, articles and more to the Internet instantly.
9- Journalists troll blogs for source material because bloggers often break stories before traditional media. Posts in your blog can lead to coverage in mainstream, traditional media. Key people in the media search the blogs for information. We often get news from blogs well before the same information is seen in CNN. FOX, traditional networks, or other news services.

10- Blogs are a perfect way to organize large amounts of information because posts are automatically archived and searchable.

11- Blogs generate traffic. Search engines love blogs, so a good blog will drive traffic to you and your web site. Blog page listings are updated frequently in the search engines because they are strong on content and changed often. As a result, blogs can drive high-quality listings for a web site.

12- Blogging is a very inexpensive form of advertising and there is a high click through rate for advertising on the better blogs. Its good advertising and marketing. Click-through rates on blog ads can reach 5%, and blog advertising is particularly good for niche marketing. Banner ads are nowhere near that. Some bloggers are getting 6-figure incomes from their support advertising in their blogs.

13- Blogs establish you as an authority on the subject of your blog, increasing your credibility.

14- Several blogs reach over 100,000 unique visitors a day. In other words, if you do it right you have a very large audience.

Disadvantages of blogs:
1. Like practically everything else on the Web, blogs are easy to start and hard to maintain. Writing coherently is one of the most difficult and time-consuming tasks for a human being to undertake. So, far from blogs being a cheap strategy, they are a very expensive one, in that they eat up time. As a result, many blogs are not updated, thus damaging rather than enhancing the reputation of the organization.

2. Most people don't have very much to say that's interesting, and/or are unable to write down their ideas in a compelling and clear manner. People who have most time to write have least to say, and the people who have most to say don't have enough time to write it.

3. It is easy for a non-technical person to maintain a blog. This is both a plus and a minus. The fact that updating is easy makes it possible for a non-technical person to update the blog. At the same time, this means you can find a large number of blogs out there that add nothing to the blogosphere but garbage and mis-information.
4. Blogs are time intensive. You need to do research to find and verify information. You have to keep up with many other blogs. You have to keep your blog updated, or you lose your readers. It also takes time and effort to build your audience. Once the audience is built, however, it is a loyal audience. Of the over 11 million blogs out there, only about 4 million are active. People quit keeping the blogs up for a variety of reasons. Most of these relate to the difficulty and time required to author quality content and the research required to keep it accurate.

Blogging requirements:

- Blogs are writing intensive. Most people would rather have root canal than write something coherent, pithy and provocative every day. It takes talent, skill and training to write down ideas clearly and make them interesting to read.
- Maintaining a blog is hard work. Searching and writing is a complex and extremely time-consuming task. A blog that isn't kept up to date quickly loses its luster and its audience.
- Blog software is cheap and easily configured. However, you need to have a designer customize the appearance and navigation of your blog and set up templates to make using it easy for you.
- It takes time, effort, and skillful promotion to build an audience for a blog. Just like a newsletter, report, Website or e-book, driving traffic to a blog requires marketing.
- You have to register your blog in blog search engines, and use subtle PR to push traffic to your blog. Blogs are no more of a "build it and they will come" medium than Web sites. Beyond time and consistently good content, you need to think about sending out press releases and media alerts about your blog's scoops. (And of course you need to have scoops to do that.)
- A blog that isn't well-written and frequently updated will simply be ignored.
- A blog that is an obvious attempt at self promotion may be mocked by other bloggers. You could be a laughing stock of the blogosphere.

The Pros and Cons of Blog Comments
Blogs are an excellent way of sharing information on any subject under the sun. Blogs allow you to build a global following of readers that may be based around a common interest. As well as sharing your identity with readers, you also get to hear the inner workings of like-minded folks. Blogs help create a more interactive and socially aware universal community. One of the most exciting features of the blogging experience is that it is not just about putting your thoughts on the World Wide Web but getting feedback or comments from and connecting with others of similar interests. Blog comments let readers of your blog from around the blogosphere give a piece of their minds on what you share on your blog. Receiving comments from readers is one great way to learn and widen your perspectives about things.

Blogs are akin to conversations. One of the key characteristics of a blog is the ability of readers to leave comments on what you have posted. This ability paves the way for two-way communication that creates the feel of a true conversation and in many cases help builds meaningful relationships.Blog comments can be also used to facilitate another conversation. They can serve as catalysts that will let readers set the agenda for your next posting and in the process generate even worthwhile and longer conversations. Blog comments provide you with a topic for a new post. Bloggers do run out of things to write about. Blog comments provide you with ideas for new posts. Instead of conversations waning fast as the post gets old, the conversation stimulates new excitement and can proceed to another level when you draw your readers' attentions back to the conversation. Some comments can even change your opinion on a topic or present another point of view. You can give ample acknowledgement to your readers for contributions and the effect will be significant – a worldwide following of loyal readers. On some blogs, comments are threaded so that readers can also comment on other comments.

However, some bloggers especially those with heavy traffic or massive readership are reluctant to allow blog comments. A highly trafficked blog would need a staff to manage the influx of comments. Comments can be lots of work and if not managed properly can reflect poorly on a company blog or a celebrity blog. Some comments even need to be edited, moderated and sometimes out rightly deleted. A comment is said to be moderated when the blogger controls the comments on the different article posts. This helps tackle comment spam and delete unwanted comments. Comment spam is one reason why some bloggers do not allow blog comments.

Comment spam refers to useless comments to posts on a blog. They usually contain links to other blogs or websites. Spammers use comment spam to obtain high ranking in search results. Spammers can be quite relentless thus bloggers sometimes get overwhelmed and just decide to shut off blog comments. Nevertheless, there are anti- spam and spam combating tools to control comment spam. The Internet community is constantly working on more and better ways to combat these annoying blog comments. Comment spam can be minimized thus there is absolutely no reason to totally turn off blog comments.

There are times too when an influential blogger writes something controversial and ends up with hundreds of comments. Since some of them are not direct links, it is hard to conduct a real conversation in blog comments especially if you get a deluge of comments. These comments can sometimes be rude, off-topic and offensive. For a blogger who doesn't have the time or doesn't want to make time, comments may not be worth it. Sometimes it takes so much of time to even think about them. A good solution is to scan the comments and respond in summary in a second posting. It is all a question of handling blog comments you receive.

It is common etiquette to respond to comments. You want to build relationships effectively so if readers leave comments, then make an effort to reply. Definitely, there will be times when comments will not be favorable. This is to be expected. This is what sharing and learning is all about. You should still try to respond and present your side in a professional way. In the end you will gain respect and credibility in the blogosphere plus more readers. Common etiquette also expects you to respond to comments in a post. Take time to acknowledge commenter. Assure your readers that their comments do influence your thought process. Comments and the communication they bring are key elements that make a blog effective.

For a blog to be effective, comments should add value not only to specific blog post but to the whole blog itself. Some bloggers speak out that blog comments have been reduced to the point where they add no significance. There are comments that are not well-thought of, others are even rubbish. In situations like this, bloggers cannot be held at fault if they disable their blog comments. Comments should refine or challenge your thinking and educate you, the commenter and the readers.

Another advantage of blog comments is that they help increase your blog's ranking in the all powerful search engines. When you post a comment, Yahoo and MSN will count the link within comments as a backlink to your blog. This can help search engine ranking if done right. For the vast majority of bloggers, blog comments will be a most welcome feature. But in defense of bloggers who do not allow comments, it is their prerogative. The general opinion seems to be that a blog is not a blog without comments. According to Wikipedia, a blog entry typically consists of the title, body, and permalink and post date. A blog entry optionally includes comments, categories and trackbacks.

There are basically two choices when it comes to your blog. You can set it up so you can post entries and visitors will just read your post or you can allow your readers to comment on your posts and engage them

in dialogues. Anyway, blogs are not just about comments. They are about trackbacks, pingbacks and tagging. All these will also pave the way for more dynamic conversations. Track back helps you notify another blogger that you wrote something related to what he had posted on his blog. A pingback lets you inform a blogger if you link to his article. With pingback and trackback, blogs are interconnected. Tagging is simply assigning keywords to blog posts. It is a means of remembering links and discovering other blog entries. So, not allowing blog comments does not mean that the blog author fails to participate in the conversation. A conversation need not carry on from its originating blog. Anyone can continue the conversation anywhere, anytime.

Online Storytelling

Storytelling is a concept used for various methods of constructing and performing or distributing stories. The methods can be used in numerous ways and for numerous causes as entertainment, education, advertising, etc. Digital and interactive media have eased the production process for making multimedia stories and increased the opportunities for people telling their stories. The Internet has given possibilities for individuals as well as enterprises to distribute their stories to a global community. Also, individuals as well as organizations that did not reach an audience before because of for example a narrow or wide spread target group, may now be able to find them on the web. One of the greatest opportunities of multimedia journalism is the ability to make different design choices. Although most online organizations present digital derivatives of their "parent" products – newspaper sites present columns of text, radio sites feature audio files, and TV sites provide video – we are seeing an increase in the number of sites embracing all design options. Radio sites are complementing their audio with photos and/or text, newspaper sites are presenting video and audio slide shows along with their text, and TV stations are supplementing their video pieces with text stories. Increasingly, news organizations are challenging themselves and their staffs with stepping outside of their format expertise and trying to produce news packages that take full advantage of the array of media formats available. Online news sites are trying to integrate different media types into the story package – creating rich multimedia experiences for their audience. Exploration in the use of Flash helps designers create a common interface those transitions easily from graphics, to video to photos to audio without interrupting the user. Creating these rich media experiences is a commitment of time and specialized talent that news organizations cannot afford for every story. This is the biggest challenge for news designers.

The workflow of online storytelling
The models for distribution of stories look different for each user (messenger) or purpose. Here's how the production process of a online story may look and also what kind of functions are involved in the production process.

1- Objective
The first stage is to define purpose and objectives of the story to be produced. Questions to answer here is: Who is the messenger? Who is the target group?

2- Message
The second stage is to define the message of the story, from out of that one also defines the plot of the story, the roles, context etc.

3- Choice of media
The third step is to define what Medias and techniques to use to produce and distribute the story (print, TV, Internet, but also pictures, movie etc.).

4- Story structure
In the fourth step the script is written and storyboards produced to define what visuals, sounds and graphics should be used in the story.

5- Creative production
Visual material, sound, graphics are produced.

6- Editing
The material is being edited until the story is well produced and ready to be published or distributed in selected media.

7- Publishing/ distribution

When published and distributed the story on the Internet or via e-mail it reaches its final receiver or user. Here's a look at how to tell stories online and the range of forms being used by major online news organizations. This list was the first comprehensive effort to document online storytelling forms (Has since been updated). It makes infinitely easier for media instructors to explain the convergence - and the divergence - among the various media platforms. Online web writing was more informative multimedia writing moves towards entertainment more like the difference between news writing and feature writing in print. Through multimedia you "add" the eye and the ear. Telling news stories online is exciting and challenging because of all the tools at our disposal. Online journalists must think on multiple levels at once: words, ideas, story structure, design, interactive, audio, video, photos, and news judgment.

TV is about showing the news. Print is more about telling and explaining. Online is about showing, telling, demonstrating and interacting. It's easy for online journalists, most of who have been trained in traditional media, to stick to broadcast and print storytelling forms. But that would be a waste. In online journalism you have many more elements to choose from — so use them. Combine the best of each world:

- Use print to explain
- Use multimedia to show
- Use interactive to demonstrate and engage

Layer information.
Aim to present news in small, digestible bits of information, rather than everything at once. Then use some combination of text, art, audio, video, links and interactive to provide deeper layers of information the readers can dig into as they desire.

Give choices, but limit them.
Too few choices and you're not taking advantage of the strengths of the Web. Too many choices and readers may not select any because they might get confused or not want to spend the time deciding. Plus, the more choices you give, the less control you have over how the news is conveyed. Remember, readers are coming to your site in part because they trust your news judgment, so don't be afraid to use it.

The Basic Forms
Here's an overview of some of the most common storytelling forms being used by major news Web sites.

Print Plus
This is the basic form of online journalism, used by every major news site. The form is built around a text article, often one that was not specifically written for the online medium, such as a wire or newspaper story. Other elements — such as photos, links and video — are then added to the page containing the story. The form is efficient for resource-strapped news organizations, making it easy to slap together an already-written article with a clip from TV.   But the form doesn't take full advantage of the medium. It is primarily a way to repackage news produced by traditional media.

Clickable Interactives
In the most common forms, these are simply interactive versions of traditional newspaper and TV graphics, used to provide information to supplement a story. But the same tools and techniques also can be used to tell stories. Generally, they combine linear and non-linear storytelling, giving the user choices but guiding him or her along a path. Animation, audio and video can be incorporated. This form has produced some of the most innovative online journalism. It tends to be very popular among users, but is very time-consuming to produce.

Slideshows
Slideshows are more than just an easy way to present multiple images about an event. The form can be used to tell stories all by itself, by combining descriptive photos and using the caption field to convey additional information. Rather than just throwing together a bunch of interesting photos, select photos that

will, when placed in a certain order, tell a cohesive story — creating a type of photo essay. When done right, this is one of the more effective ways of using the Web to tell stories.

Audio Stories
Audio can be an incredibly powerful way to tell a story. There's a reason radio didn't disappear after TV came along. Use audio when there are sounds that can't be described in words; where the way a person says something adds meaning that the words alone can't convey. Don't just hotlink text to a sound clip of a quote. Use photos of the speakers to draw users in. And use audio in creative ways.

Narrated Slideshows
This form combines slideshows, audio and the video format to create powerful stories. The producer selects a series of photos and audio sound bites that complement one another. As the photos advance automatically, the corresponding audio plays. The entire package is played as streaming video or a Flash movie. The result often resembles the documentary style of Ken Burns. This is a useful form for stories with strong images and sound.

Live Chats
Chats may not seem like storytelling, but they can be. When moderated properly, live chats are an interactive version of the Q&A story format, where the readers are asking the questions. This can be a very powerful way to convey information because the readers help create and shape the story. Of course, many online chats are either not moderated at all or are poorly moderated, and as a result are nearly worthless.

Quizzes And Surveys
These too may not seem like storytelling, but the forms can be used to do so. Rather than just make a quiz as a fun aside to a story, an entire story can be told through the quiz format by breaking the information into questions and answers. This can be very effective because it engages the reader.

Animated Stories
Stories can be told entirely through animation. This is a great way to tell stories visually when there are no photos or video. A lot of animation being used online doesn't tell a story. Heck, it doesn't tell the reader anything. And along with all the annoying ads, that's just helped train online readers to ignore animation. So don't overuse it.   That said, it can be a great tool. It's OK to use it to grab the reader's attention, but do so sparingly because it can distract the user from the real story. Use animation to bring newspaper infographics to life, when you want to recreate an event that has motion or action, to show how something happened or works. Or use it for humorous stories, such as editorial cartoons.

Interactive Webcasts
The term "Webcasting" is used to describe the ability to use the Web to deliver live or delayed versions of sound or video broadcasts. It is a broadcast that is delivered over the Internet. Participants can view and hear streaming media, and they can participate in real-time online chats. Webcasting streaming video has been around for a while, but news sites are just beginning to combine various interactive tools with the Webcasts into packages. Adding links to related stories, chats, polls that are referred to in the Webcasts create a very different experience than just watching TV. More advanced versions use technologies such as Flash and SMIL to embed instructions within the video so that text, links, etc., can be called up at certain points in the video. During the 2000 presidential debates, for example, MSNBC.com users could watch the debate on their computer and on the same screen see a "Debate Monitor" panel that was continuously updated with facts related to the statements each candidate made, as they made them.

Multimedia Interactives
Many online journalism elements and stories combine multiple forms, creating, in effect, new, hybrid forms. The most complicated of these use Flash's animation technology to integrate text, clickable graphics, audio, photos, video -- and sometimes even polls or quizzes -- to create comprehensive interactive packages that tell stories in ways no other medium can.

Other Forms
Here are some other interesting examples of online storytelling:
- Stories without words:
- Surround photos and video:
- Weblogs:
- Databases:
- Using community:
- Interactive memorial:
- Text chunking (Semi-linear storytelling with words):
- Games:

Prevention of Electronic Crimes Ordinance, 2007 an ordinance

To make provision for prevention of the electronic crimes, WHEREAS it is expedient to prevent any action directed against the confidentiality, integrity and availability of electronic system, networks and data as well as the misuse of such system, networks and data by providing for the punishment of such actions and to provide mechanism for investigation, prosecution and trial of offences and for matters connected therewith or ancillary thereto; AND WHEREAS the National Assembly stands dissolved and the President is satisfied that the circumstances exist which render it necessary to take immediate action; Now, THEREFORE, in exercise of the powers conferred by clause (1) of Article 89 of the Constitution of the Islamic Republic of Pakistan and in exercise of all powers enabling in that behalf, the president is pleased to make and promulgate the following Ordinance: -

Short title, extent application and commencement. -
*   This Ordinance may be called the Prevention of Electronic Crimes Ordinance, 2007.
*   It extends to the whole of Pakistan.
*   It shall apply to every person who commits an offence under this Ordinance irrespective of his nationality or citizenship whatsoever or in any place outside or inside Pakistan, having detrimental effect on the security of Pakistan or its nationals or national harmony or any property or any electronic system or data located in Pakistan or any electronic system or data capable of being connected, sent to, used by or with any electronic system in Pakistan.
*   It shall come into force at once.

OFFENCES AND PUNISHMENTS

Criminal access
Whoever intentionally gains unauthorized access to the whole or any part of an electronic system or electronic device with or without infringing security measures, shall be punished with imprisonment of either description for a term which may extend to two years, or with fine not exceeding three hundred thousand rupees, or with both.

Criminal data access
Whoever intentionally causes any electronic system or electronic device to perform any function for the purpose of gaining unauthorized access to any data held in any electronic system or electronic device or on obtaining such unauthorized access shall be punished with imprisonment of either description for a term which may extend to three years, or with fine or with both.

Data damage
Whoever with intent to illegal gain or cause harm to the public or any person, damages any data is shall be punished with imprisonment of either description for a term which may extend to three years, or with fine, or with both.

System damage
Whoever with intent to cause damage to the public or any person interferes with or interrupts or obstructs the functioning, reliability or usefulness of an electronic system or electronic device by inputting, transmitting, damaging, deleting, altering, tempering, deteriorating or suppressing any data or services or halting electronic system or choking the networks shall be punished with imprisonment of either description for a term which may extend to three years, or with fine or, with both.

Explanation: For the purpose of this section the expression "services" include any kind of service provided through electronic system.

Electronic fraud

Whoever for wrongful gain interferes with or uses any data, electronic system or electronic device or induces any person to enter into a relationship or with intent to deceive any person, which act or omission is likely to cause damage or harm to that person or any other person shall be punished with imprisonment of either description for a term which may extend to seven years, or with fine, or with Both.

Electronic forgery
Whoever for wrongful gain interferes with data, electronic system or electronic device, with intent to cause damage or injury to the public or to any person, or to make any illegal claim or title or to cause any person to part with property or to enter into any express or implied contract, or with intent to commit fraud by any input, alteration, deletion, or suppression of data, resulting in unauthentic data with the intent that it be considered or acted upon for legal purposes as if it were authentic, regardless of the fact that the data is directly readable and intelligible or not shall be punished with imprisonment of either description for a term which may extend to seven years, or with fine or with both.

Misuse of electronic system or electronic device
a. Whoever produces, possesses, sells, procures, transports, imports, distributes or otherwise makes available an electronic system or electronic device, including a computer program, designed or adapted primarily for the purpose of committing any of the offences established under this Ordinance or a password, access code, or similar data by which the whole or any part of an electronic system or electronic device is capable of being accessed or its functionality compromised or reverse engineered with the intent that it be used for the purpose of committing any of the offences established under this Ordinance, is said to commit offence of misuse of electronic system or electronic devices:
b. Whoever commits the offence described in sub-section (1) shall be punishable with imprisonment of either description for a term which may extend to three years, or with fine, or with both.

Unauthorized access to code
Whoever discloses or obtains any password, access as to code, system design or any other means of gaining access to any electronic system or data with intent to obtain wrongful gain, do reverse engineering or cause wrongful loss to any person or for any other unlawful purpose shall be punished with imprisonment of either description for a term which may extend to three years, or with, or with both.

Misuse of encryption
Whoever for the purpose of commission of an offence or concealment of incriminating evidence, knowingly and willfully encrypts any incriminating communication or data contained in electronic system relating to that crime or incriminating evidence, commits the offence of misuse of encryption shall be punished with imprisonment of either description for a term which may extend to five years, or with fine, or with both.

Malicious code
a. Whoever willfully writes, offers, makes available, distributes or transmits malicious code through an electronic system or electronic device, with intent to cause harm to any electronic system or resulting in the corruption, destruction, alteration, suppression, theft or loss of data commits the offence of malicious code:
b. Whoever commits the offence specified in sub-section (1) shall be punished with imprisonment of either description for a term which may extend to five years, or with fine or with both.

Cyber stalking
a. Whoever with intent to coerce, intimidates, or harass any person uses computer, computer network, internet, network site, electronic mail or any other similar means of communication to. -

- Communicate obscene, vulgar, profane, lewd, lascivious ,
- or indecent language, picture or image;
- make any suggestion or proposal of an obscene nature;
- threaten any illegal or immoral act;

- take or distribute pictures or photographs of any person
- without his consent or knowledge;
- display or distribute information in a manner that
- substantially increases the risk of harm or violence to any
- Other person commits the offence of cyber stalking.

b. Whoever commits the offence specified in sub-section (1) shall be punishable with imprisonment of either description for a term which may extend to seven years or with fine not exceeding three hundred thousand rupees, or with both:

Spamming

a. Whoever transmits harmful, fraudulent, misleading, illegal or unsolicited electronic messages in bulk to any person without the express permission of the recipient, or causes any electronic system to show any such message or involves in falsified online user account registration or falsified domain name registration for commercial purpose commits the offence of spamming.

b. Whoever commits the offence of spamming as described in sub-section (1) shall be punishable with fine not exceeding fifty thousand rupees if he commits this offence of spamming for the first time and for every subsequent. Commission of offence of spamming he shall be punished with imprisonment of three months or with fine, or with both.

Spoofing. -

a. Whoever establishes a website, or sends an electronic message with a counterfeit source intended to be believed by the recipient or visitor or its electronic system to be an authentic source with intent to gain unauthorized access or obtain valuable information which later can be used for any unlawful purposes commits the offence of spooling.

b. Whoever commits the offence of spooling specified in sub-section

(1) Shall be punished with imprisonment of either description for a term which may extend to three years, or with fine, or with both.

Unauthorized interception. -

a. Whoever without lawful authority intercepts by technical means, transmissions of data to, from or within an electronic system including electromagnetic emissions from an electronic system carrying such data commits the offence of unauthorized interception?

b. Whoever commits the offence of unauthorized interception described in subsection (1) shall be punished with imprisonment of either description for a term which may extend to five years, or with fine not exceeding five hundred thousand rupees, or with both.

Cyber terrorism. -

Any person, group or organization who, with terroristic intent utilizes, accesses or causes to be accessed a computer or computer network or electronic system or electronic device or by any available means, and thereby knowingly engages in or attempts to engage in a terrorist act commits the offence of cyber terrorism.

Explanation1: For the purposes of this section the expression "terroristic intent" means to act with the purpose to alarm, frighten, disrupt, harm, damage, or carry out an act of violence against any segment of the population, the Government or entity associated therewith.

Explanation2: For the purposes of this section the expression "terroristic act" includes, but is not limited to, -

i. Altering by addition, deletion, or change or attempting to alter information that may result in the imminent injury, sickness, or death to any segment of the population;

ii. Transmission or attempted transmission o a harmful program with the purpose of substantially disrupting or disabling any computer network operated by the Government or any public entity;

Aiding the commission of or attempting to aid the commission of an act of violence against the sovereignty of Pakistan, whether or not the commission of such act of violence is actually completed; or

stealing or copying, or attempting to steal or copy, or secure classified information or data necessary to manufacture any form of chemical, biological or nuclear weapon, or any other weapon of mass destruction.
b. Whoever commits the offence of cyber terrorism and causes death of any person shall be punishable with death or imprisonment for life, and with line and in any other case he shall be punishable with imprisonment of either description for a term which may extend to ten years, or with fine not less than ten million rupees, or with both.

Enhanced punishment for offences involving sensitive electronic systems. -
a. Whoever causes criminal access to any sensitive electronic system in the course of the commission of any of the offences established under this Ordinance shall, in addition to the punishment prescribed for that offence, be punished with imprisonment of either description for a term which may extend to ten years, or with fine not exceeding one million rupees, or with both.
b. For the purposes of any prosecution under this section, it shall be presumed, until contrary is proved, that the accused had the requisite knowledge that it was a sensitive electronic system.

Of abets, aids or attempts to commits offence
a. Any person who knowingly and willfully abets the commission of or who aids to commit or does any act preparatory to or in furtherance of the commission of any offence under this Ordinance shall be guilty of that offence and shall be liable on conviction to the punishment provided for the offence.
b. Any person who attempts to commit an offence under this Ordinance shall be punished for a term which may extend to oneha1f of the longest term of imprisonment provided for that offence.
Explanation: For aiding or abetting an offence to be committed under this section, it is immaterial whether the offence has been committed or not.

Other offences
Whoever commits any offence, other than those expressly provided under this Ordinance, with the help of computer .electronic system, electronic device or any other electronic mean; shall be punished, in addition to the punishment provided for that offence. with imprisonment of either description for a term which may extend to two years, or with fine not exceeding two hundred thousand rupees, or with both.

Offences by corporate body
A corporate body shall be held liable for an offence under this Ordinance if the offence is committed on its instructions or for its benefit.' The corporate body shall he punished with fine not less than one hundred thousand rupees or the amount involved in the offence whichever is the higher:
Explanation: For the purposes of this section corporate body, includes a body of persons incorporated under any law such as trust, waqf, an association, a statutory body or a company.

Information And Communication Technologies Tribunal
31. Information and Communication Technologies Tribunal
a. As soon as possible after the commencement of this Ordinance, the Federal Government shall, by notification in the official Gazette, constitute the Information and Communication Technologies Tribunal whose principal seat shall be at Islamabad.
b. The Tribunal may hold its sittings at such place or places as the Federal Government may decide.
c. The Tribunal shall consist of a chairman and as many members as the Federal Government may determine but not more than seven members.
d. The Chairman may constitute Benches of the Tribunal and unless otherwise directed by him a Bench shall consist of not less than two members. A Bench shall exercise such powers and discharge such functions as may be prescribed. There shall be established at least one Bench in each province.
e. The Federal Government shall appoint the Chairman and members of the Tribunal.

Saving Tribunal's proceedings
No act or proceedings of the Tribunal shall be called in question in any manner on the ground merely of any defect in the constitution of the Tribunal.

Right to legal representation
The parties in appeal may either appear in person or authorize one or more legal practitioners, and in case of a corporate body any of its officers, to present the case before the Tribunal.

Appeal to Tribunals
Any person aggrieved by any of the following orders may, within fifteen days from the date of such order, prefer an appeal to the Tribunal.

Appeal to High Court
Any person aggrieved by any decision or order of the Tribunal made under section 40 may prefer second appeal to the respective High Court within thirty days from the date of the decision or order of the Tribunal.

Revision of Important basic concepts

Distinguishing characteristics of online journalism
- Real time
- Shifted time
- Multimedia
- Interactive

Characteristics of online journalism
- Hypertextuality
- Interactivity
- Multimediality
- Immediacy

Characteristics of the Internet
1. Anonymity
2. Interactivity
3. Beyond geography
4. Online community
5. Lower cost to participate in the public sphere
6. Lower threshold for self-expression of political opinions

Impact of Internet on Journalism
1- Traditional media started developing online presence
2- Anyone can be publisher
3- Internet introduced Mass interaction to mass media
4- Impact of internet on News gathering
5- Impact of internet on Access to information and distribution of News

Flexible Delivery Platforms
Online news contents included in searchable databases
- SMS on cells
- Breaking News emails alerts
- RSS feed

Impact of internet on Process, Production, Storing, retrieval and Presentation of news.

What is media convergence?
- Convergence of media occurs when multiple products come together to form one product with the advantages of all of them.
- Media Convergence is gathering and dissemination of news across a multi- media platform." - Traci Mitchell.
- Media Convergence is the process of combining and presenting of different media (multimedia) into a single delivery system. The Internet is an example of convergence.
- Data and Voice Services - from separate voice and data services to multimedia applications (IP-Telephony, Web Contact Centers)
- Fixed and Mobile Networks and Services - from separate ones to the single infrastructure: CAMEL, VHE, IPv6, IMS
- Public and Corporate Networks – from dedicated networks to open networks.
- Phone, TV and Computer Terminals – from separate devices to combined multimedia terminals
- Broadcasting services-from broadcasting services to Web based TV services: IATV, VoD, WebTV
- For the consumer: more features in less space.

- For media companies: remaining competitive in the struggle for market dominance.
- An ever-wider range of technologies are being converged into single multipurpose devices.

Text + photos + audio + video + graphics = multimedia.
Suppose you decided to profile, a brilliant painter/composer. Which medium, or media, would produce the best story? To display his paintings, you'd use photographs. To present his music, you'd use audio recordings. To show him at work — conducting a rock band or painting — you'd use video footage. To explain the meaning and impact of his art, you'd use text. In short, to create the ideal profile, you'd need multimedia, Cross-platform journalism, Media convergence. Whatever you call it, it's an idea whose time has finally come. Stories once trapped on paper can now be posted online; stories once confined to text and photographs now integrate audio, video and interactivity. Technological innovations are transforming 21st-century journalism. Your job, your newsroom, even the stories you write will soon change dramatically.

Digital Divide
The term digital divide refers to the gap between those people with effective access to digital and information technology and those without access to it. It includes the imbalances in physical access to technology, as well as the imbalances in resources and skills needed to effectively participate as a digital citizen. In others words, it's the unequal access by some members of the society to information and communications technology, and the unequal acquisition of related skills. Groups often discussed in the context of a digital divide include socioeconomic (rich/poor), racial (white/minority), or geographical (urban/rural). The term global digital divide refers to differences in technology access between countries.
Many expressions were used to describe the dichotomy of people's participation or not in the Information Society such as information poor/ rich or have/ have not, but the most widely spread now is the "Digital Divide". Used by most international organizations, this expression has become the reference term. At first, some narrower definitions of the digital divide were focused only on access to computers and Internet but access alone does not bridge the technology gap. As a result, definitions are much wider today. "The term 'digital divide' describes the fact that the world can be divided into people who do and people who don't have access to - and the capability to use - modern information technology, such as the telephone, television, or the Internet. The digital divide exists between those in cities and those in rural areas. It also exists between the educated and the uneducated, between economic classes, and, globally, between the more and less industrially developed nations".

- "The digital divide is the "Differences based on race, gender, geography,
- economic status, and physical ability:
- In access to information, the Internet and other information technologies
- and services
- In skills, it refers to the gap between knowledge, abilities to use internet
- And abilities to use technologies".

There are two different forms of Digital divide, one between countries but also between groups within a country. Bridges organization extensive report puts it in these terms "Real disparities exist in access to and use of information and communications technology (ICT) between countries (the "international digital divide or global digital divide") and between groups within countries (the "domestic digital divide")".

Checklist for the analysis of Web sites
1-   How navigable is the site?
2-   How readable is the information on the site?
3-   Is the site aesthetically pleasing?
4-   How informative is the site?
5-   How long does it take to get the page loaded onto the screen?
6-   How does it look on the different browsers and different resolutions?
7-   How does it come with Daily Updates and Breaking News?
8-   Does it provide any system to enable readers to alert to mistakes and hold us accountable?
9- Does it provide the facility of Feed back?

10- Does it provide the facility to view or read the old versions of news paper?
11- Does it provide the facility of Search the site because the larger sites need a search feature so visitors do not get lost?

Useful Tips for Effective Web Design

1. Fast Loading web site
2. Clear Navigation
3. All Resolutions
4. Browser Compatibility
5. Readable and professional looking fonts
6. Minimize the use of
7. Use of white space
8. Check for broken links

Blogs and Blogging
A blog is a website in which items are posted on a regular basis and displayed in reverse chronological order. The term blog is a shortened form of weblog or web log. Authoring a blog, maintaining a blog or adding an article to an existing blog is called "blogging". Individual articles on a blog are called "blog posts," "posts" or "entries". A person who posts these entries is called a "blogger". A blog comprises text, hypertext, images, and links (to other web pages and to video, audio and other files). Blogs use a conversational style of documentation. Often blogs focus on a particular "area of interest. Some blogs discuss personal experiences.'

Components of Blogs:
1- Subject or Header:
2- Content or Body:
3- Comments:
4- Time and Date Stamp:
5- Community:
6- Blogroll:
7- RSS feeds:
8- An archive feature for older articles.
9- Blogs also focus on a particular topic such as a corporate vision, politics, religion, sports, or health.

---**The End**---