



E-Business Consulting - The Government Issue Guidebook Compilation

The E-Business MBA for the CEO

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History Understanding The Internet

If you're using the Internet now to gather information, shop or just for entertainment, then you're probably familiar with the process of dialing in and moving from website to website. But do you really understand how you're doing what you're doing as you move from web location to web location? How did it all get started, this Internet thing?

The Internet began in the late 1960s as an experiment by the U.S. Department of Defense to see if a non-centralized network could be built to withstand the destruction of one or more of its parts. Unlike previous networks, this new network did not have a single central point. Instead, all sites on the network were interconnected.

Out of this network came a protocol for linking computers together. A protocol is a set of standards for how network communication takes place. The protocol is called TCP/IP (Transmission Control Protocol/Internet Protocol). This protocol is the standard that makes it possible for different computers all over the globe to talk to each other. The TCP/IP protocol is the foundation of the Internet.

At first, the Internet was used solely by the government, but soon universities and other institutions connected themselves to the Internet to communicate with one another and collaborate on projects. The Internet grew to connect hundreds of different sites all across the world. Each organization on the Internet was responsible for maintaining its part of the network, so the Internet was not owned or controlled by any one organization.

Today, the Internet connects up to 40 million people around the globe and is growing by as much as 10% per month.

Getting connected

The Internet is like a system of roads, freeways, and bridges. Although the term "Information Superhighway" is over-hyped, it is a decent metaphor for how the Internet works. From any road in any city, you can get to almost any other road in any other city. From my computer at my desk, I can send an electronic mail message to someone sitting at a computer in Helsinki, Taipei, or Biloxi.

Internet access companies or Internet Service Providers provide "onramps" to the Information Superhighway -- physical connections that allow you to access the Internet. These onramps are called "POPs," which stands for "points of presence."

Your computer uses a modem to dial into a POP which connects you to the Internet. Once connected to a POP, you have access to all the resources of the Internet. Most ISP's will also supply you with software available for "surfing" the Internet: a Web browser.

The Birth of Domain Names

In the 1980's, a major shift occurred as a result of the increase in scale of the Internet and its associated management issues. To make it easy for people to use the network, hosts were assigned names, so that it was not necessary to remember the numeric addresses. Originally, there were a fairly limited number of hosts, so it was feasible to maintain a single table of all the hosts and their associated names and addresses. The shift to having a large number of independently managed networks (e.g., LANs) meant that having a single table of hosts was no longer feasible, and the Domain Name System (DNS) was established. The DNS permitted the conversion of a numeric host address (i.e, 215.72.87.66) to a simpler, easier to remember name address (somesite.com).

The Birth of the Web Browser

In October of 1994, Mosaic Communications Corporation (renamed "Netscape Communications" on 11 November 1994) introduced the first public beta of their browser, "Mosaic NetScape." This was one of the first web browsers to be freely distributed across the Internet.

How does my email work?

Let's say you're sending mail to joy@aol.com. When you've finished composing your email, your mailer (email software) performs a gethostbyname system call to look up the IP address of the remote host (aol.com).

Normally the host would be looked up from /etc/hosts, but since you're on the Internet, your system queries an Internet name server to find the address of aol.com.

Your mailer opens a virtual circuit over the Internet to "joy's" mailer. It communicates with the remote mailer by using the Simple Mail Transfer Protocol (SMTP).

If all goes well, the mail is usually delivered within a few seconds, even if the recipient's machine is on the other side of the world.

If the remote site is down, your mailer will keep trying every hour or so, usually for a couple of days.

If the site still can't be reached, the mail will be returned to you as "undeliverable."

People and organizations without fulltime Internet connections may also use the Post Office Protocol (POP).

How do I create a domain name?

Option 1

- Go online to either InterNIC (www.internic.com) or a name registration service such as www.register.com and perform a name search to make sure the domain you want to establish is available.
- After confirming the availability of your domain name, complete the online registration form to secure your name.

Option 2

- You select an Internet Service Provider to host your website.
- The service provider registers your company with the InterNIC -- the Internet's Network Information Center.
- A unique domain name, of your choosing, is assigned to your business or organization. For example, sun.com, indiana.edu, nasa.gov, neosoft.com.

- One or more IP network numbers are assigned to you. For example, 198.64.6. Internet zone tables are updated to include your domain name, the mapping between your domain name and network numbers, and to show that the route to your network is through your service provider.

What should it cost to have my own website?

Hosting fees will vary based on your individual need for space, download capacity, security and special programming requirements. In general, the monthly hosting fee for a basic web site account should cost between \$25 and \$50 a month.

Free Hosting Services

There are a variety of places on the Internet that offer hosting at no charge. Before you decide to host your website with one of these services, be sure you understand the fine print of your hosting agreement. In general free hosting services are free because of the following:

- You will be required to place banner advertisements on either the top or bottom of each page of your website. In some cases you will be required to place banner advertisements on both the top and the bottom of your web pages.
- The activities of visitors to your website will be tracked via Cookies or other online software. Their activities on the Internet will be monitored and the data collected will be sold to marketing services.

About Modems And Telephone Lines

Telephone lines were designed to carry the human voice, not electronic data from a computer. Modems were invented to convert digital computer signals into a form that allows them to travel over the phone lines. Those are the scratchy sounds you hear from a modem's speaker. A modem on the other end of the line can understand it and convert the sounds back into digital information that the computer can understand..

Buying and using a modem used to be relatively easy. Not too long ago, almost all modems transferred data at a rate of 2400 Bps (bits per second).

Today, modems not only run faster, they are also loaded with features like error control and data compression. So, in addition to converting and interpreting signals, modems also act like traffic cops, monitoring and regulating the flow of information. That way, one computer doesn't send information until the receiving computer is ready for it. Each of these features, modulation, error control, and data compression, requires a separate kind of protocol and that's what some of those terms you see like V.32, V.32bis, V.42bis and MNP5 refer to.

If your computer didn't come with an internal modem, consider buying an external one, because it is much easier to install and operate. For example, when your modem gets stuck (not an unusual occurrence), you need to turn it off and on to get it working properly. With an internal modem, that means restarting your computer--a waste of time. With an external modem it's as easy as flipping a switch.

Here's a tip for you: in most areas, if you have Call Waiting, you can disable it by inserting *70 in front of the number you dial to connect to the Internet (or any online service). This will prevent an incoming call from accidentally kicking you off the line.

This table illustrates the relative difference in data transmission speeds for different types of file under the best of circumstances. A modem's speed is measured in bits per second (bps). A 14.4 modem sends data at 14,400 bits per second. A 28.8 modem is twice as fast, sending and receiving data at a rate of up to 28,800 bits per second.

Many things can interfere with the speed of a file transfer. These can range from excessive line noise on the telephone line, the speed of the web server from which you are downloading files, the number of other people trying to access the same file and the overall traffic on the Internet

Until the end of 1995, the conventional wisdom was that 28.8 Kbps was about the fastest speed you could squeeze out of a regular copper telephone line. Today, you can buy a modem capable of a data transmission up to 56 Kbps. The key question for you is knowing what speed modems your Internet service provider (ISP) has.

If your ISP has only 28.8 Kbps modems on its end of the line, you could have the fastest modem in the world, and only be able to connect at 28.8 Kbps. Before you invest in a 56 Kbps modem, make sure your ISP supports them.

DSL

DSL (Digital Subscriber Line), a high-speed technology, is becoming increasingly popular. A DSL line can always remain connected to the Internet, so you don't need to dial-up. Typically, data can be transferred at rates up to 1.544 Mbps downstream and about 128 Kbps upstream over ordinary telephone lines. Since a DSL line carries both voice and data, you don't have to install another phone line. You can use your existing line to establish DSL service, provided service is available in your area and you are within the specified distance from the telephone company's central switching office.

DSL service requires a special modem and a network card in your computer. Prices for equipment, DSL installation and monthly service can vary considerably, so check with your local phone company and Internet service provider. The good news is that prices are coming down as competition heats up. Some companies now provide free installation and equipment when you sign-up for a year of service.

Cable Modems

Another new development is a device that provides high-speed Internet access via cable TV. With speeds of up to 36 Mbps, cable modems can download data in seconds that might take fifty times longer with a dial-up connection. Because it works with your TV cable, it doesn't tie up a telephone line. Best of all, it's always on, so there is no need to connect--no more busy signals! This service is now available in some cities in the

Getting On The Web from the SBA

Should a Business get on the Web

The answer to that question is relatively simple. Everyone is talking about the Internet. It's new! It's fun! It's exciting! And it's not just for kids. The Internet, particularly in its graphic interface known as the World Wide Web, is probably the most important communication vehicle developed since the telephone. And more importantly for the small business, the Web levels the playing field between small business and big business.

Let's look at the variety of commercial uses for the Internet:

The Web is the newest medium for advertising. It offers significant advantages over traditional advertising media in that it is dynamic, interactive and inexpensive. The Internet is making it possible for small- to medium-sized businesses to compete with the big guys. Of course, as the Web matures, advertising rates for the most popular sites will increase. Advertising is not the only way to make your business known via the Web. Search engines are another powerful and low cost way to increase awareness of your products and services.

The Web is an important customer service tool. Did you throw away the TV guide this week? You can check out your local TV station's Web page for its weekly schedule or the network specials this week. Have you ever wanted hard facts comparing natural gas to electricity? This type of information and much more is available on the web. Soon you'll be able to schedule appliance repair times and make changes to your gas service account by sending an email, at your convenience, either during or after regular business hours. Wouldn't you rather shop for a new car from the comfort of your home, in the quiet time late at night after the kids are in bed? This is now possible in many areas of the country. The Web allows you to communicate with your customers at their convenience. Don't you want to offer this level of service to your customers?



Network connectivity makes it possible for you to hook up your local area network (LAN) directly to the Internet. Who wants to do that? Lots of companies! For example, a wide area network (WAN) connection offers multiple simultaneous connections through a dedicated data line at a tremendous savings over individual modems and standard telephone lines.

This makes your existing internal email addresses work as Internet email addresses. It also allows you to set up your own Web server with your own domain name, to provide volumes of information to existing and potential new customers, and to take orders on-line.

[eCommerce Resources](#)

What Is E-Commerce?

Simply put, e-commerce is the online transaction of business, featuring linked computer systems of the vendor, host, and buyer. Electronic transactions involve the transfer of ownership or rights to use a good or service. Most people are familiar with business-to-consumer electronic business (B2C). Common illustrations include Amazon.com, llbean.com, CompUSA.com, travelocity.com, and hotels.com.

E-commerce can be divided into:

E-tailing or "virtual storefronts" on Web sites with online catalogs, sometimes gathered into a "virtual mall"

The gathering and use of demographic data through Web contacts
Electronic Data Interchange (EDI), the business-to-business exchange of data e-mail and fax and their use as media for reaching prospects and established customers (for example, with newsletters)

Business-to-business buying and selling (B2B)

Are You E-Commerce Ready?

Companies that have decided on how to portray their business online must assess whether they have the most efficient information technology (IT) solutions to execute their online exporting programs. IT embodies a range of computer systems and software applications for managing a firm's web site, as well as personnel records, back end databases, etc. With more and more cyber attacks on government and corporate sites, companies should invest in security technologies to protect themselves and their customers from identify theft and denial of service.

An IT assessment should answer the following questions:

What is the firm's current IT usage? Is it at capacity? What are the plans for additional IT investment to upgrade existing systems?

What business applications are best suited to move on line for B2B or B2C electronic?

What does the cost/benefit analysis of all possible projects involving IT show?

What are possible current and future security issues and what is the action plan for correcting problems?

There are, of course, many other factors to consider in doing international e-commerce, such as executing orders and payment issues that have a special e-commerce perspective, which are addressed in other parts of this site.

Step-by-Step Guide to Going Online

Use these steps as a guide to creating your website and marketing your company overseas using the internet and key service providers.



1. Select A Domain Name

Selecting a domain name for your company's international website(s) is the first important decision you'll make and can potentially have significant marketing implications.



2. Register at Search Engines

Help potential customers find your website by registering with the major search engines in the countries you wish to target.

3. Choose a Web Host

Find a dependable web hosting service to house your localized website(s). Many hosting providers offer additional value-added services such as site maintenance, search registration, site development, etc.

4. Website Content – Localize and Internationalize

Target international customers by tailoring your website to local language and cultural tastes.

5. Execute Orders

Enable your customers to use a variety of payment options that meet local business practices and be aware of other considerations when doing international business such as taxes, shipping, customs duties, and after sales service.

Step 1. Select A Domain Name

A key component to establishing a web presence is choosing a Universal Resource Locator (URL) and a domain name (i.e., www.computersrus.com). As with URLs aimed toward the domestic market, a URL for an online exporter's website should be short, simple, descriptive and memorable to customers in the target market. [ICANN Accredited Registrars](#) will concurrently register your URL and domain name for each country in which you register.

Using Country-Level Domain Codes

Every country (and a few territories) in the world has a reserved, two letter country code domain (e.g, The United Kingdom has the domain .uk; see <http://www.thrall.org/domains.htm>). An online exporter might want to choose domain names localized for their target markets. Locally branded domain names can increase brand awareness, website address recall and even impact brand sales and loyalty. In addition, most local search engines display locally relevant content by filtering the search results to include local country-code domains only... something to consider when deciding whether to localize or internationalize your site. Companies that want to have a local domain name should research the rules for the particular country, as registration requirements vary. (See www.iana.org, which lists domain name databases and <http://www.iana.org/cctld/cctld.htm>, which includes information on country code top-level domain names.) The link to [Top Internet Markets](#) on the right provides information on registering domain names in a few international markets.

Internationalizing Your Domain Name

Companies seeking foreign customers may also consider an "internationalized" or "multilingual" domain name. Such domain names are web addresses written in characters other than the Roman alphabet. For example, a company called "Bright Light Bulbs" wishing to sell in China could have a domain name that would use the Chinese characters for Bright Light Bulbs in its website address. Internationalized or multilingual domain names allow customers to search and access sites in their native language.

Again, most ICANN Accredited Registrars can assist you in researching domain names in various countries.

Step 2: [Register with Search Engines](#)

Step 2. Register at Search Engines

Most people use search engines to find information on the Internet, so website registration with multiple search engines is key to visibility. Search engines range from global in scope to search tools focused on small areas of information. There are a number of international search engines. Some are in native languages and characters (i.e., <http://nomade.aliceadsl.fr/>). Others are popular English search engines with international links (i.e., <http://br.cade.yahoo.com/>). Online exporters should register with search engines popular with the target audience in their target markets.

[U.S. Commercial Service](#) officers in your target market can help you identify popular local search engines. See also, research on the [Top Internet Markets FAQ](#) at right.

Step 3: [Choose Web Host](#)

Step 3. Choose a Web Host

A web host is a company with a server that maintains the files of websites. There are a variety of free and subscription based web host services available, including those offered by many Internet Service Providers.

Web hosting services often go beyond website maintenance to include domain name registration, website design, and search engine registration. For some online exporters, it may be most feasible to use a web host in their target market to take advantage of all of these localized services. The location or nationality of the website host does not impact accessibility of the site. However, when choosing a host, companies should ensure that the host servers reside within a stable infrastructure and are maintained to ensure optimal reliability. Companies also should consider whether they will be storing personal information of EU citizens or citizens of other nations that restrict the export of personal data. EU citizens' personal data can only be sent to countries deemed "adequate" or to companies using approved model contracts, binding corporate rules, or those participating in the U.S. EU Safe Harbor program (discussed in the privacy section of [E-ssentials](#) at right). Companies also should take into account potential negative perceptions if they store personal data in nations in which fraud or identity theft are rampant.

As with domestically located web hosting services, agreements should be clear and enforceable about ownership of intellectual property, performance specifications and warranties, security, privacy, the right to transfer the site to a different host, and contract termination. Your contract with a hosting service should provide the same level of security and privacy that your company promises clients whose information it collects, when applicable.



The [U.S. Commercial Service](#) officers in your target market can help you identify professional local web hosts. See also, research on the "[Top Internet Markets FAQ](#) " at right.

Step 4: [Website Content -- Localize and Internationalize](#)

Companies seeking foreign audiences with their websites will want to either localize or internationalize their site, or provide a mixture of both processes. Forrester Research notes that "visitors linger twice as long [on international sites] as they do at English-only URLs; business buyers are three times more likely to buy if addressed in their own language; and customer services costs drop when instructions are displayed in the user's language."

Localization consists of adapting one's website to meet the linguistic, cultural, and commercial requirements of a targeted market.

Internationalizing a firm's website enables the company to be multilingual and be sensitive to cultural conventions without the need for extensive redesign. Localization or internationalization must be part of the online exporter's corporate strategy for website and business development.

Features that should be considered include:

- language
- cultural nuance, such as differences in color association and symbols
- payment preferences
- pricing in the appropriate currency
- web metrics and visitor reports
- regular maintenance and updating

More information on localization and internationalization can be found at the website for the Localization Industry Standards Association, www.lisa.org or the Globalization and Localization Association, www.gala-global.org. TechCom Manager's June 2009 newsletter also provides a helpful article entitled, "[Web Site Globalization's Hidden Secrets](#)."

Step 5: [Execute Orders](#)

Step 5. Execute Orders

Guidelines for order execution and after-sales service are similar for offline and online transactions. Companies planning to export via the Internet should be knowledgeable about the topics discussed in the [E-Payment & Taxes](#), [Pricing Tariffs & Shipping](#) and the [E-ssentials](#) sections of this website.

Next: [Identifying Your E-Markets](#)

Identifying Your E-Markets

Deciding which markets to target is one of the most important decisions a potential exporter can make. It is important to learn how to research foreign markets and tailor your products to regional tastes. [U.S. Commercial Service trade specialists in your target market](#) can help you identify market research needs you should consider for cross-border e-commerce. See also, research on the "[Top Internet Markets FAQ](#)".

Step-by-Step Approach to Market Research

Learn how to best utilize the market research made available by the U.S. government on the internet.

Market Research Reports

Search the market research library, view a video market report, or find a wealth of country and industry-specific reports and trade statistics.

Step-by-Step Approach to Market Research

Step 1. Find Potential Markets

Obtain [trade statistics](#) that indicate which countries import your type(s) of products.

Perform a thorough review of the available [market research reports](#) in the country(ies) and industries in question to determine market openness, common practices, tariffs and taxes, distribution channels, and other important considerations.

Identify five to ten large and fast-growing markets for the firm's product(s). Analyze them over the past three to five years for market growth in good and bad times.

Identify some smaller but fast-emerging markets where there may be fewer competitors.

Target three to five of the most statistically promising markets for further assessment. Consult with [U.S. Export Assistance Center](#) near you.

Step 2. Assess Targeted Markets

Examine consumption and production of competitive products, as well as overall demographic and economic trends in the target country.

Ascertain the sources of competition, including the extent of domestic industry production and the major foreign countries the firm would compete against.

Analyze factors affecting marketing and use of the product in each market, such as end-user sectors, channels of distribution, cultural idiosyncrasies, and business practices.

Identify any foreign barriers ([tariff or nontariff](#)) for the product being imported into the country and identify any [U.S. export controls](#).

Identify U.S. or foreign incentives to promote exporting of your product or service.

Determine whether your product is price competitive after you've figured in packaging, shipping, marketing, sales commissions, taxes & tariffs, and other associated costs. See "[pricing considerations](#)".

Step 3. Draw Conclusions

If the company is new to exporting, it is probably a good idea to target 2 or 3 markets initially. Your local [Export Assistance Center](#) can provide valuable insight into your "optimal" market opportunities.

Step 4. Test Demand

There are a number of low-cost on-line and off-line services that can help new exporters gauge foreign market interest and collect overseas inquiries: 1) [Catalog Exhibitions](#) 2) [Commercial News USA](#) 3) [Foreign Partner Matching and Trade Lead Services](#)

Market Research

Plan your market entry the right way – use market research to learn your product’s potential in a given market, the best prospects for success, and the market’s business practices before you first export.

If you’re just beginning to sell internationally, narrow your focus by concentrating on no more than *two* or *three* best-prospect markets. Use our [Step-by-Step](#) research guidelines to get started.

Market Research

Access the U.S. Commercial Service [Market Research Library](#) containing more than 100,000 industry and country-specific market reports, authored by our specialists working in overseas posts.

The Library Includes:

- Country Commercial Guides

- Industry Overviews*

- Market Updates*

- Multilateral Development Bank Reports*

- Best Markets*

- Industry/Regional Reports*

* These market research reports are available only to U.S. companies and students/researchers that are registered with Export.gov. Register above to get access.

Market Research Basics

Where do I start?

Maybe you read an article about a foreign market's interest in your product. Perhaps you met a potential international buyer at a trade show. Whatever the reason, the key to export success is researching the market to develop a careful and thorough plan.

Step 1: Screen Potential Markets

For each product consider:

- Using historical value and volume data is it possible to identify market demand and trends. Statistics on product exports are available from a variety of sources including FAS, Department of Commerce and the National Trade Data Bank.
- Identifying several (i.e. 6) markets that are large and growing fast. Look for consistent market growth or growth after a recession.
- Identifying smaller markets. These markets may provide ground-floor opportunities so as to develop customer loyalty before your competitors enter the market. While value and volumes may be small, smaller markets should have much higher growth rates than the large markets.

Of the countries investigated – which have the most potential? Which have the strongest supporting data?

Step 2: Assess Target Markets

For each market, the following should be considered:

- Trends for the Product: consumption, value of the import market, demographic information, etc.
- Sources of Competition: domestic and import.
- Marketing and Use: channels of distribution, cultural differences, pricing.
- Trade Barriers: tariff and non-tariff, packaging requirements, labeling, certificates.
- Promotion Opportunities: Trade shows, missions, trade leads, industry partners.

Use the checklist! Complete a [Market Assessment Checklist in Word format \(.doc\)](#) or [Market Assessment Checklist in Adobe Acrobat \(.pdf\)](#).

This can be used to fill in detailed information about each country to assess the market. You can also give each market a score on a scale of 1-5 to help compare markets.

Step 3: Develop an Export Plan

After assessing the markets, it will be easy to [develop an export plan](#).

http://www.export.gov/agx/market_research/Market_Assessment_Checklist.doc

Types of E-Commerce Web Sites ⁱ

Electronic commerce offers much promise to U.S. firms interested in using the Internet as another vehicle for exporting. However, the marketing executive should be familiar with the steps necessary to make the firm's web site e-export capable. Many U.S. companies have a web site that fulfills one or more marketing functions tailored to their business specialties. These sites feature one or more of the following characteristics (Note: all of the sites given as examples below have been internationalized or have localized mirror sites to facilitate cross-border e-commerce):

Transactional Site

People who shop online are most familiar with this type of website. A transactional site may be an electronic storefront for a brick-and-mortar retailer or a catalog business, (e.g., [Lands' End](#)), or a manufacturer showroom for those wishing to sell directly to the public (e.g., [Dell Computer](#)). Transactional sites conduct full “end-to-end” transactions via the website, allowing customers to search for, order, and pay for products online as well as allowing them to contact the company for after-sales service. The most sophisticated sites create efficiencies by integrating the transaction process with back-office systems such as accounting, inventory, sales and others (e.g., [Amazon](#)).

Information Delivery Site

This site generates sales by promoting corporate awareness rather than facilitating online transactions. Its function is similar to a brochure, providing information about the product or service and contact information on how to proceed with a purchase. Because this site is often static and doesn't require the software systems necessary for online transactions, it is less expensive to design and maintain than the transactional site. An information delivery site is ideal for companies that market products and services that cannot be provided online or goods that cannot be sold online (e.g. [Ford](#), [Caterpillar](#)).

A modified version of this site permits the buyer to shop online for the best price from competing vendors providing the identical product, e.g., authorized dealers of Honda America. Information on options available for a particular model allows the buyer to “visualize” the configuration and obtain an estimated price for the vehicle.

E-marketplaces

These sites are market-makers: they bring buyers and sellers together to facilitate transactions. Participation in a brokerage often provides an efficient way of finding a customer without the expense of building a proprietary transactional website. Types of brokerages include auctions (e.g. [eBay](#)), sites for local artisans (<http://www.wftomarket.com/>), and matching services (www.buyusa.gov).

Market Development on the Web

As with brick and mortar enterprises, market development is an integral part of a firm's e-business presence on the Internet. Companies should consider and evaluate the advantages of advertising online as an extension and component of their corporate growth strategies and as part of their international marketing efforts. Advertising messages often appear on portals or other websites that draw viewers with content (news, information) and services (such as email, chat, forums, etc.). Companies may seek to advertise on search engines that attract high traffic volume (e.g., Yahoo!) or target a specialized demographic (e.g., ivillage). Some portals sell favorable link positioning or advertising keyed to particular search terms in a user query (e.g., Overture). Companies may also consider using an advertising network that feeds ads to a network of sites, thereby enabling large marketing campaigns (e.g, Doubleclick).

Direct E-mail

Direct e-mail may be a good way to promote web presence, depending on the market, product, or service. Direct e-mail is an inexpensive way to reach thousands of potential customers. However, several countries have legislation prohibiting or restricting unsolicited commercial email (see the International Telecommunication Union website at www.itu.int/osg/spu/spam/law.html for more information on international spam legislation), and certainly any email must not constitute fraud. The Direct Marketing Association suggests that any email marketing should have:

1. an honest subject line;
2. no forged headers or technological deceptions;
3. the identity of the sender, which includes a "physical" address; and
4. an opt-out that works and is easy to find and easy to use (although note that some countries may specify an opt-in approach. Research spam legislation for the country you are targeting.)

Whether you're targeting domestic or international customers, before choosing direct e-mail as a way to promote web presence, companies should be aware of the potential for backlash against unsolicited e-mails by consumers who feel overwhelmed by the number of such e-mails received.

E-Payments & Taxes

Companies who use the Internet to reach overseas customers frequently use their website to process orders and accept payments. To ease international customers' use, companies should consider installing currency converters on the payment page. Additionally, as payment practices usually vary from country to country, it is important that the prevalent payment mechanisms be identified and incorporated into the order-processing component of the web site. [U.S. Commercial Service Trade Specialists](#) in your target market can help you identify a country's most common payment mechanisms, which you should consider before commencing cross-border e-commerce in a particular market. See also, research on the [Top Internet Markets FAQ](#).

Covered In This Section:

[Credit Card Payments](#)

[Account-to-Account Transfers](#)

[Person-to-Person Transfers](#)

[Taxation](#)

Credit Card Payments

For B2C transactions, many overseas customers use credit cards for online purchases, but credit cards are not a universally common method of online payment. For example, regulations in some countries hold cardholders liable for fraudulent charges, other countries are culturally cash-based, and others simply do not like credit. Nonetheless, to offer credit card payment services, a company must establish a credit card merchant account with a bank. The bank will process the transactions in exchange for a fee.

Companies should compare the fee structures of banks to see which works best for the size and number of transactions expected.

While fast, credit cards carry their risks. Chargebacks can be very costly for online exporters. Common chargeback reasons are: fraud, dispute over the quality of merchandise, non-receipt of merchandise, or amount charged to card was incorrect. Companies accepting online credit card transactions should be knowledgeable about their credit card and bank's policies toward chargebacks and how to avoid them.



Account-to-Account (A2A) Transfers

A2A transfers, in which money is transferred electronically between the customer's and merchant's bank, are popular in many countries. A2A transactions offer the advantages of occurring in real time and reducing the potential for fraud and chargebacks. Unfortunately, because A2A transactions are rare in the U.S., few U.S. banks currently offer this service.

Person-to-Person (P2P) Transfers

There are many companies offering P2P services, in which funds are sent electronically to a third party, which in turn deposits the funds in the merchant's account. An example of a P2P service provider that conducts cross-border transactions is PayPal. PayPal lets anyone with an email address securely send and receive online payments using their credit card or bank account. PayPal will also conduct currency exchange, allowing the customer and merchant to operate in their preferred currency.

Internationally, P2P transfers have come under some degree of scrutiny (see a [United Nations Discussion Paper about Informal Money Transfer Systems](#)), so it is advisable to consult with a Commercial Service officer in the country you are targeting before deciding on a particular payment mechanism.

Taxation

An online merchant selling to international customers must pay careful attention to the tax implications of those sales. In general, once a company crosses a certain threshold of activity in a foreign country, the company becomes subject to income tax in that foreign country. In many cases, a company must have a "permanent establishment" in the foreign country before that country will subject the company to income tax on the company's business profits from that country. Thus, for example, an American online vendor of digitally- or physically- delivered products that does not have equipment or personnel in Japan generally would not be subject to Japanese income tax on its sales. However, there are important exceptions to this general rule. Some payments from customers in a foreign country may be subject to withholding tax by the foreign country (e.g., if the foreign country determines that the payments are "royalties" or other payments subject to withholding). Electronically delivered goods should be treated like any other sale to a foreign customer. It generally is the responsibility of the customer/importer to declare their purchase and pay any taxes. [Tax and tariff information](#) on a country-by-country basis is available, or contact a [Commercial Specialist in the targeted country](#) for more information. In addition, a foreign country may impose other types of taxes, such as value-added tax (VAT), on sales into its jurisdiction. For example, as of July 1, 2003, the EU member states began taxing sales of electronically supplied products and services by non-EU firms to non-business customers located in the EU.

Non-EU providers of electronically supplied products and services are now required to register with a tax authority in a member state and collect and remit VAT based on the VAT rate of the member state where their customer is located. Additional information regarding taxation of hardware and software around the world can be found at the Department of Commerce, [Office of Information Technology and Electronic website](#).

Pricing, Tariffs, Shipping & Licensing

The methods to determine appropriate pricing, tariff rate and ideal method of shipping for your product(s) are no different for e-commerce transactions than they are for other transactions. For convenience, the following subject headings link to additional information on these topics available on Export.gov.

[Pricing Your Product](#)

The process of shipping and pricing goods purchased over the Internet is identical to those purchased via other means except for products delivered digitally over the Internet (i.e., music, videos, games, software, etc.), which are downloaded from a web site.

[Determining Tariff Rates](#)

Find import tariff rates by country for your product(s). Account for tariff rates when pricing your product.



Shipping Your Product

Research information on shipping, logistics, required documentation, and service providers that can help facilitate getting your products to port and through foreign customs.

Note that a Shippers Export Declaration is not required for "intangible exports of software and technology, such as downloaded software and technical data (i.e., software delivered electronically), including technology and software that requires an export license and mass market software exported electronically." This is true regardless of value.

Export License Requirements

Most export transactions do not require specific approval from the U.S. Government. The Department of Commerce has jurisdiction over "dual use" exports (commercial items which could have military applications) as well as purely commercial items. Other U.S. government agencies regulate more specialized exports. For example, the U.S. Department of State has authority over defense articles and defense services. Before shipping your product, make sure you have determined the export license requirements for your transaction.

http://www.export.gov/sellingonline/eg_main_020761.asp

eMarketing

E-mail marketing is one of the most effective ways to keep in touch with customers. It is generally cost-effective, and if done properly, can help build brand awareness and loyalty. At a typical cost of only a few cents per message, it's a bargain compared to traditional direct mail at \$1 or more per piece. In addition, response rates on e-mail marketing are strong, ranging from 5 to 35% depending on the industry and format. Response rates for traditional mail averages in the 1 to 3% range.

One of the benefits of e-mail marketing is the demographic information that customers provide when signing up for your e-mail newsletter. Discovering who your customers really are - age, gender, income, and special interests, for example - can help you target your products and services to their needs.

Points to consider when creating your e-mail newsletter:

- **HTML vs. Plain Text:** Response rates for HTML newsletters are generally far higher than plain text, and graphics and colors tend to make the publications look far more professional. The downside is that HTML e-mail is slower to download, and some e-mail providers may screen out HTML email.
- **Provide incentive to subscribe:** To get customers to sign up for your newsletter, advertise the benefits of receiving your newsletter, such as helpful tips, informative content, or early notification of special offers or campaigns.
- **Don't just sell:** Many studies suggest that e-mail newsletters are read far more carefully when they offer information that is useful to the customers' lives rather than merely selling products and services. Helpful tips, engaging content, and humor are often expected to accompany e-mail newsletters.
- **Limit questions:** As each demographic question you ask may reduce the number of customers signing up, it's best to limit the amount of information you solicit or give customers the option of skipping the questionnaire.



Establishing a Web Presence

Even if you choose not to sell your goods or services online, a business web site can be a virtual marketing brochure that you can update on demand with little or no cost. Your presence on the Internet can be a useful marketing tool by providing richer pre-sale information or post-sale support and service. This might temporarily differentiate your product or service from your competitors'. E-marketing has lessened the disadvantage that small businesses have faced for years when competing with larger businesses.

eCommerce has redefined the marketplace, altered business strategies, and allowed global competition between local businesses. The term "electronic commerce" has evolved from meaning simply electronic shopping to representing all aspects of business and market processes enabled by the Internet and other digital technologies. The SBA is preparing to help this new generation of Internet-enabled or eSmall Businesses.

Today's business emphasis is on ecommerce - rapid electronic interactions enabled by the Internet and other connected computer and telephone networks. Rapid business transactions and unparalleled access to information is changing consumer behavior and expectations. The U.S. Small Business Administration (SBA) is reshaping its programs to better serve small businesses that take advantage of the Internet and other emerging technologies.

Many small businesses assume that the Internet has little value to them because they feel that their product or service cannot be easily sold online, but inexpensive information processing and electronic media can help most small businesses provide better, faster customer service and communication.

eCommerce FAQs

What can a small business do to get started in electronic commerce without a lot of money to invest?

As the Internet and digital economy continue to shift, vendors and service providers will continually try to find unique ways to provide low-cost services to small businesses. One quick example is the numerous websites offering free development and hosting. For example, the sites offer a web development application in a "wysiwyg" (what-you-see-is-what-you-get) style that allows each person the ability to create their own type of website. Other options include participation in an online marketplace. These mechanisms are roughly designed to simulate a real marketplace that will attract customers due to a shop-at-once mentality instead of surfing the Internet for different goods and services. A fast developing theme among new and old participants in the digital economy is the use of ASPs (application service providers). These service providers allow you to purchase many of the off-the-shelf operating applications that you may use to run your business (finances to human resource management to inventory processing) at a much lower cost as well as have someone else manage and host the data. It also reduces the time and labor force necessary to run such types of operations. A final recommendation is the notion of partnering. Finding similar organizations that can share resources and expenses can help you achieve your goals in the digital economy. The key role of the digital economy and electronic commerce is to help streamline your traditional organizational processes and daily routines and automate them through the Internet. Sharing the burden of making that happen can help minimize the expense and difficulty and stimulate a potential relationship for furthering business behavior.

What quick advice can you give on marketing a small business in the digital economy?

First and foremost, put your URL (or website address) on all of your organization's correspondence. That includes business cards, stationery, posters, flyers, e-mail headers, or footers and any other advertisement activity. Remember, you never know who may read or run across information about your company. Make sure they have the ability to reach you. Second, you have to do your research. No matter what location you're in, most likely your local government has some sort of economic development office as well as a Chamber of Commerce. Both are great resources to ask about events, promotions, and other activities that will allow you to get your name out. Another great resource is the U.S. Small Business Administration's national resources. From regional offices to local business development centers, the SBA is ready to help you out by providing contact information or counseling you on a particular business endeavor. Third, work on all of your vendor and partner relationships. The best marketing technique still remains word-of-mouth. And who is better at telling potential customers about your organization than those who already do business with you. In today's digital economy, that can also mean other types of help. For example, many business partners work with one another on listing each other's URL (website address), know that the other person's site is another avenue to attract customers otherwise foregone. Be cautious, though, in working with linking agreements. You don't want to water down your site with too many links. The goal should always be to link to another site if it builds or provides value to your clients.

How often should a website be updated?

This question refers to the Internet term of versioning, or the reformatting of an organization's website. Similar to a company's advertising strategy, new ideas built on customer response and organizational direction must be put in place or an organization can be viewed as aging. There is no standard time related to how often a new version of a website should be established. However, the market indicates that most companies are making substantial changes every two to three months on average. Most of these changes reflect better service to the customer and the roll out of a new product or service.

Others are based on keeping the customer interested or entertained enough to come back to the site. One particularly interesting piece of advice is that organizations can use an advisory board or group to provide feedback on their site. This group is open to suggest changes to the current structure based upon personal use as well as by comparison to competitors' sites.

What is Electronic Commerce (the 'EC' part of EC/EDI)?

Electronic Commerce (EC) is the paperless exchange of business information using Electronic Data Interchange (EDI) and related technologies. You are probably familiar with Electronic Mail (E-Mail), computer bulletin boards, facsimile machines (faxes), Electronic Funds Transfer (EFT), and the like. These are all forms of EC. All EC systems replace all or key parts of paper-based workflow with faster, cheaper, more efficient, and more reliable communications between machines. In today's Defense Department procurement arena, however the most important EC technology to know about is Electronic Data Interchange, or EDI.

When did the age of electronic commerce begin?

Business-centered electronic commerce began more than two decades ago with the introduction of electronic data interchange (EDI) between firms (sending and receiving order, delivery and payment information, etc.) Even consumer-oriented electronic commerce has a rather long history: each time you use automatic teller machines or present your credit cards, you transact business electronically. These EDI and ATM, however, operate in a closed system; they are of a more convenient communications medium, strictly between the parties allowed in. The World Wide Web (WWW), the Internet's client-server, opened up a new age by combining the open Internet and the easy user interface. WWW was created at the CERN Lab for Particle Physics in Geneva in 1991 (with its Mosaic, the predecessor of Netscape). It took two years for Mosaic to penetrate the Internet, and another two years before businesses and the general public took notice of its potential.

Is EC here to stay? Will it be here but gone tomorrow?

EC and the Internet, are not fads because of their widespread effects. Some may find it useless to open a web store, but web stores do not make electronic commerce or the digital economy. There will be new types of interfaces (browsers and protocols) and new (privatized) networks, but what the WWW represents is our march toward the digital economy and knowledge-based society. Technologies, the Web and other processes are but a means of achieving that goal.

Will EC be limited because not many people can afford PCs and/or access to the Internet?

Today's EC processes are based on personal computers because of their origin within the Internet, a network of computers. First stage of EC expansion is that within the installed base of computer users (more connected users). The second wave will come when more people get access to computers (via lowered computer prices or cheaper devices). The third and more important, expansion is predicted to be from those with non-computer access to the global network: through broadcast TVs, cable TVs, telephone networks and new appliances. A widespread use of these cheaper access media represents the phase of bringing workplace computers into the living room. However, the affordability of these devices, the easiness of use or the mode we access the network is less of an issue than how we will use these devices. Turning the computer into a convenient device like a TV is a goal in itself. For example, the speech-to-text technology will eventually make manual inputting unnecessary. In terms of productivity, it is hard to convince that computer hardware and software have met our expectation for making our work and life easier or more productive during the last decade. But what will we do with new gadgets when we get them? Delivering the same information but more conveniently? Selling the same entertainment and TV programs but with more pizzazz? The limiting factor will be our limited vision about the electronic future.

Why should one care about electronic commerce?

Participants in the electronic marketplace are not limited to so-called digital product companies such as those in publishing, software, entertainment, and information industries. The Digital Age and the digital revolution affect all of us by virtue of their process innovations. At the least, through WebTV and digital television, the way we watch TV news and entertainment programs will change. Changes in telecommunication will affect the way we receive information, product announcements, orders, etc. As phones, fax machines, copiers, PCs and printers have become essential ingredients in doing business, so will be emails, websites, and integrated digital communications and computing. While today's office business machines are not integrated (e.g. faxed orders have to be typed in on computers), the much talked about convergence will drive all these equipment into one digital platform, whether it be a computer connected to the Internet and intranets, or a new kind of device capable of interacting with other devices, because that device will prove to be more efficient and productive. (Although, will it be easier to use? That depends on how developers and industry leaders promote interoperability and standardization.) Even seemingly mundane bookstores face different challenges in the electronic marketplace by virtue of having digital processes in their business operations. The case of Amazon.com vs. Barnes & Noble shows that the very definition of stores has to be re-evaluated. This also touches upon the issue of taxable nexus and sales tax collection on the Internet. Distributing books require numerous local outlets (local bookstores) to provide convenient access to customers. At the same time, mail order distribution has been used for many decades through various book clubs. Taking this direction into the Internet, Amazon.com has become the leading online bookstore, billing itself as the "largest bookstore" on earth not by opening numerous branch stores but via the Internet.

The "biggest bookstore," Barnes & Noble with a towering share of revenues and physical book stores, has been forced to respond to Amazon.com's challenge by opening its own Web store as well as by bringing a law suit against its challenger. (See insert: The Fight Between the Biggest and the Largest) What are competitive strategies of these two bookstores? Will any business selling physical products be facing a similar competition?

What Buzzwords Do I Need to Know?

eCommerce is rife with buzzwords and catchphrases. Here are some of the current terms people like to throw around: Digital or electronic cash: Also called e-cash, these terms refer to any of several schemes that allow a person to pay for goods or services by transmitting a number from one computer to another. The numbers, just like those on a dollar bill, are issued by a bank and represent specified sums of real money. One of the key features of digital cash is that it's anonymous and reusable, just like real cash. This is a key difference between e-cash and credit card transactions over the Internet. For more information, see PC Webopaedia. Digital money: This is a grab-bag term for the various e-cash and electronic payment schemes on the Internet. Yahoo lists 21 companies offering a form of digital money. Disintermediation: Disintermediation is the process of cutting out the middleman. When Web-based companies bypass traditional retail channels and sell directly to the customer, traditional intermediaries (such as retail stores and mail-order houses) may find themselves out of a job. Electronic checks: Currently being tested by CyberCash, electronic checking systems such as PayNow take money from users' checking accounts to pay utility and phone bills. Electronic wallet: This is a payment scheme, such as CyberCash's Internet Wallet, that stores your credit card numbers on your hard drive in an encrypted form. You can then make purchases at Web sites that support that particular electronic wallet. When you go to a participating online store, you click a Pay button to initiate a credit card payment via a secure transaction enabled by the electronic wallet company's server.

The major browser vendors have struck deals to include electronic wallet technology in their products. Extranet: This extension of a corporate intranet connects the internal network of one company with the intranets of its customers and suppliers. This makes it possible to create eCommerce applications that link all aspects of a business relationship, from ordering to payment. Micropayments: transactions in amounts between 25 cents and \$10, typically made in order to download or access graphics, games, and information, are known as micropayments. Pay-as-you-go micropayments were supposed to revolutionize the world of eCommerce. One early scheme, for example, let visitors to ESPN SportsZone use their CyberCash CyberCoin accounts to buy a \$1 day pass to the site's premium content, without having to spring for a full month's subscription, but many potential customers have been unwilling to play along with micropayments.

How Can Small Businesses Take Advantage of eCommerce?

Large companies pour millions into fancy ecommerce sites, but even mom-and-pop shops can make money on the Web with a simple, no-frills site. Sometimes, all it takes to succeed is the promotional savvy to get noticed by customers. Word of mouth, postings in newsgroups, and registration with search engines may be enough to get the customers rolling into your site. Kevin Donlin is a writer and Web developer who opened Guaranteed Résumés on the Internet back in 1994. Now, he gets about 100 visitors each day and draws half his income from his resume-writing business. Donlin succeeds by keeping his costs down: the site sits on the server of his local ISP, and customers, who come from Japan and Europe as well as the United States, pay with a credit card via phone, fax, and even email. Instead of subscribing to an expensive, third party payment system to handle the credit card transactions online, he enters all the purchases into a swipe terminal that he leases for \$30 per month. Although most businesses can benefit from a home page on the Web, eCommerce isn't for everyone. Firms likely to profit most are those offering unique products or services that are not readily available locally.

A small bookstore such as Moe's Books in Berkeley might want to advertise readings by authors and tell its customers about specials, but it would not want to compete with Amazon.com. But onlyGourmet -a Web-based business that sells premium coffee, chocolate, and specialty foods--might find new customers in small towns around the country, where people can't find lemongrass or Swiss bitter chocolate at the corner store.

What Are the Biggest Barriers to eCommerce?

According to a survey conducted by CommerceNet, shoppers don't trust eCommerce, they can't find what they're looking for, and there's no easy way to pay for things. Other than that, it's smooth sailing. Customers are worried about credit card theft, the privacy of their personal information, and unacceptable network performance. Most shoppers still aren't convinced that it's worthwhile to hook up to the Internet, search for shopping sites, wait for the images to download, try to figure out the ordering process, and then worry about whether their credit card numbers will be filched by a hacker. To convince consumers, e-merchants will have to do a lot of educating. However, Gail Grant, the head of CommerceNet's financial research arm, predicts that most buyers will be won over in just a few years. Grant says that if Web pages were labeled with tags giving product and pricing information, it would be easier for search engines to find stuff to buy online. That hasn't happened yet, she adds, because merchants want people to find their products but not their competitors'--especially if another company's goods are cheaper. As for business-to-business systems, the issues are less emotional but still serious. Businesses do not yet have good models for setting up their eCommerce sites, and they have trouble sharing the orders and information collected online with the rest of their business applications. Many companies continue to grapple with the idea of sharing proprietary business information with customers and suppliers--an important component of many business-to-business eCommerce systems.

Who Stands to Lose From Businesses Moving Online?

The companies most directly threatened by eCommerce include travel agencies, entertainment ticket operations, mail-order catalogs, and retail stores--particularly software stores. eCommerce is already successfully invading their territories. A recent Forrester Research report predicts that sales of entertainment and travel tickets on the Internet will climb from \$475 million in 1997 to more than \$10 billion by the year 2001. Forrester says that figure represents 8 percent of all travel tickets. As Bill Gates puts it, eCommerce is about to eliminate the middleman. The buzzword of the day is disintermediation, a way of saying that anyone between the seller and the buyer is in big trouble. But a closer look reveals that eCommerce may be creating of a new kind of middleman. Some of the most talked-about eCommerce success stories, such as Amazon.com and Virtual Vineyards, are really a new kind of intermediary. Amazon.com doesn't publish books, after all, and Virtual Vineyards doesn't make wine. They are simply online distributors. But these e-middlemen must demonstrate that they add value to the buying process, through marketing, customer service, or some other method. If they don't, customers will vote with their modems and cut them out of the loop.

What Is the Future of eCommerce?

What Is the Future of eCommerce? Rest assured, there is a bright future for eCommerce. Once the details of online commerce are worked out, it and the Internet in general could reshape the structure of the business world. The huge growth of virtual communities--people getting together in ad hoc interest groups online - promises to shift the balance of economic power from the manufacturer to the consumer. At least, that's the view of John Hagel and Arthur Armstrong, a pair of analysts at McKinsey & Company, an international management consulting firm. These virtual communities are already making their presence felt. Investment site Motley Fool lets members exchange investment advice without the benefit of a stockbroker.

ParentsPlace is a meeting ground for parents that gives smaller vendors an avenue to reach potential customers for products such as baby food and shampoo. Virtual communities erode the marketing and sales advantages of large companies. A small company with a better product and better customer service can use these communities to challenge larger competitors-- something it probably couldn't do in the real world. In *Net Gain: Expanding Markets Through Virtual Communities*, published by Harvard Business School Press, Hagel and Armstrong argue that rather than fight the trend, smart companies will help build such communities and use them to reach customers.

Where can I get news about the Internet, surveys, and reports?

Keeping up with net happenings is a full-time job. Here are some sites that provide information about Internet events. Nua Internet Surveys. This email newsletter gives concise summary of most surveys and market research results. To subscribe to free, weekly reports, send an email to: surveys-request@nua.ie with the word "subscribe" in the body of the message. Check also its Surveys webpage. Forrester Research Internet News by Cowles/Simba (Merklermedia) Jupiter Communications

Why is the Internet different from other computer and network technologies?

Computers and networks are nothing new. They have existed and business applications such as LAN and EDI are well established long before the World Wide Web took over. Then, why the sudden talk of the Digital Age and the advance of electronic commerce? Two things make the Internet quite different from any other existing communications media. Unlike broadcasting media, the Internet allows two-way communications and is built around open standards. A two-way communication means targeting audience and the possibility of feedback. Broadcasting sends out messages to no one in particular and without knowing quite who has gotten the message. (What do Nielson and a horde of market research firms do for their living?)

An open standard (e.g. TCP/IP) means interoperability and the advantage of a large market and the possibility of integrating one product or process with another. Both of these characteristics are being challenged. To the WebTV generation, the digital future looks like another version of the passive one-way broadcasting. The new media sums up how publishers and media companies view the digital medium. We are so accustomed to receiving random messages that we often forget the fact that broadcasting was a 20th century phenomenon. Even interactive television envisioned by today's media is a way of providing a more lively entertainment, offering more information related to existing contents (e.g. detailed information about characters, plots, and commercials shown on TV). Multichannel, digital TV broadcasting may very well be a model for future entertainment, but it needs to be remembered that it is only one application of the digital communications network. The commercialization of the Internet is forcing businesses to differentiate their products from others by making products incompatible. Unlike the public Internet where standards were open, firms attempt to capture and dominate the market with their proprietary products. In such an environment, TCP/IP would have had a very slim chance of becoming a standard and opening up the digital, networked economy. Whether markets driven by private interests can bring about a better result (e.g., more efficient, technologically superior, etc. system) is still a concern left for arguments. Perhaps telephone networks are quite similar to the Internet (and indeed most Internet traffic goes through telephone networks). But unlike telephones, the Internet's user interface (computers) is much more sophisticated and flexible. Because of its beginning as a public research network, the Internet has no pricing regime of telephone companies. The worldwide connection, then, may be considered to have been an accident. When usage-based, long-distance charges are implemented, the Internet may look quite similar to the telephone network.

Do we have a truly worldwide network?

The ultimate goal of a global network like Teledesic is to make the globe into your home base. Currently, local ISPs provide subscribers with local access telephone numbers for dial-up. This means that you have to pay for long distance calls when you are checking your email from different cities.

Roaming services often offer Internet access at cheaper prices than long distance calls. A few service providers have point of presence (POP) in many cities. Smaller ISPs can join an alliance so as to cover a larger number of POPs worldwide. For example, iPass Alliance covers over 1,000 POPs in 150 countries. Any ISP allied with iPass will offer its own pricing schedule. (E.g. HomeGate). AimQuest is another collection of about 80 ISPs including Netcom which has its own 1,500 POP in 70 countries. Find out whether your ISP offers roaming service and if so get 800 numbers before you head out. Also in the work is Cencert Internet Dial Roaming Service, a joint venture by MCI, BT and Japan's NTT Data Corp.

What choices do I have to connect to the Internet locally?

The way our computers connect to the global network varies greatly. At work, computers are commonly hard-wired maintaining constant connection (i.e., through local area networks using Ethernet). Dial-ups establish temporary connections, typically through modems and via some telecommunications networks. These include the plain old telephone system, coaxial cables used for cable TV, wireless and cellular networks and satellite networks. Any of these connections may be constant if the line is dedicated to that purpose. The physical link from your home to trunk lines (where the traffic coming out of individual users is aggregated and carried by high-capacity coaxial and fiber optic cables) is referred to as the last mile. The sheer number of individual users and the complex switching equipment required to manage traffic make the last mile relatively costly (representing between a quarter and a third of the total networking costs). At the same time, various telecommunications players are converging into this market. This will intensify competition among last-mile players. Will this competition lead to cheaper and better networking options for consumers?

Is the Internet secure?

The proper question will be: Is the Internet secure enough, enough for commercial uses? Despite the reliable encryption and other technologies, which are sometimes superior to telephone and other communications networks, non-digital media are full of hypercritical view of the Internet security. While it is unwise to play down known security risks, it is also unnecessary to imagine a doomsday scenario for every occasion. Does the Internet need to provide more security than physical markets? Probably so because the electronic marketplace lacks some elemental safeguards available in physical markets. For example, buyers have certain assurance about a seller with a retail store although that seller might be operating a bogus shop that particular moment. But bogus operations are more difficult to recognize on the Internet. Indeed, any online trading partner cannot be sure about the identity of the other person. Technologies and legal frameworks are needed to address such problems, e.g. nation-wide digital IDs.

How do I start selling online?

From cheap and simple to expensive and complex, there's a wide range of products designed to get your eCommerce site up and selling in a matter of days or weeks. Small businesses may not have to look beyond their local Internet service providers for a bare-bones solution. For example, Brooklyn-based Forman Interactive offers Internet Creator for less than \$150. The software uses a series of wizards to help you create secure pages for selling your product. Plus, if your pages reside on Forman's servers, the company handles electronic payments via CheckFree. If you're ready to step up, you can use Yahoo's Yahoo Store, which lets you create a transactional business Web site from your browser. Yahoo hosts the site, and the cost is based on number of items--\$100 per month for a store selling 50 items and \$300 per month for up to 1,000 items. However, most eCommerce development tools targeted at small and midsize businesses cost \$5,000 to \$10,000. They generally include templates for online catalogs and databases, so it's easy to change items and prices. Dynamic database searches can serve different information when an

item is out of stock or on special, and they can be hooked up to existing back-end systems for order fulfillment and a range of automatic payment options. Companies that have a high volume of sales--especially those that deliver soft goods such as articles, reports, software, or music over the Net--require industrial-strength solutions costing anywhere from \$10,000 to \$100,000 or more. See the More Resources column at right for examples of tools from all price ranges. Of course, the software sticker price is only a small fraction of what it costs to run an eCommerce site. Many high-end eCommerce products are used by third-party companies to provide services for individual merchants. Most companies take advantage of eCommerce hosting services run by the likes of AT&T, MCI, and GTE's BBN Planet. "This is a low-risk, low-cost way of finding out how to do it," says Karl Lewis, vice president of production at Proxicom. Proxicom is a Web consulting company that recently set up an eCommerce site for Day-Timer and an extranet for Mobil Oil and its distributors.

What is intranet? Extranet?

Intranets and extranets have become en vogue. Intranets and extranets share the common protocol (TCP/IP) and Web technologies with the Internet. Intranet is a closed, business-wide network, but it uses open standards such as TCP/IP instead of proprietary protocols traditionally used for LANs (local area networks, usually hard-wired) and WANs (wide area networks, usually LANs connected by cable, telephone and wireless networks). Extranet is a private WAN running on public protocols. That is, an extranet is a virtual private network among private parties based on open network and protocols. To assure security and privacy, an extranet relies on secured channel using tunneling protocols and digital ID. In a way, extranet is a private street built on public land (although costs may be borne by private parties). What's the difference between physical stores and Web stores?

Web storefronts integrate various functions such as physical presence as a store, sales representatives, ordering and payment functions (combined cash register, credit card reader, etc.), backoffice supports and various data interchanges (for inventorying, supply ordering, etc.)

Should Web pages be jazzy or content-oriented?

Those accustomed to the old text-based Internet seem to favor simple, information-driven Web sites with not much fancy graphics. New generations of Web designers prefer graphic-rich, jazzy layouts. This is not surprising since they come predominantly from graphics professionals, and newspaper and magazine layout artists. In fact, most fancy Web sites decidedly look a lot like a magazine or a front page of a newspaper. As both these print media and screen-restricted Web page have the same spatial limitation and the need to grab eyeballs, this jazzy approach seems to make a lot of sense. Furthermore, popular sites tend to have jazzy graphics. However, are jazzy sites drawing more visitors, or do (already) popular sites tend to employ a lot of graphics? That is, New York Times Online does have the definite advantage of being well known so that even if its Web site is text-oriented, easy to navigate, and well classified for organization, it might still draw heavy traffic. Greater emphasis on contents than on appearance will reduce congestion and unnecessary delay. Too much emphasis on graphics and multimedia (although that may be interesting and act as a drawing factor) but not enough contents will ultimately convince us that the Internet is indeed as shallow as the media we have known all along is.

Should websites sell advertisements?

The balance between advertising revenues and subscription fees are puzzling content sellers on the Internet. In the end, the choice between the two is a moot issue because both ad-based and subscription-based selling is viable options. The question is which method is good for what products. Our experience with broadcast and print media will not help to answer that question because broadcast and print media are fundamentally different from the digital medium. For example, commercial-ridden television came about because there was no sure way of charging audience for what was being broadcast randomly over the air with no one targeted in particular.

Printed newspapers and magazines are constrained by the economics of mass production in pricing, in content selection and in distribution. These factors are non-existent on the Internet. Simply abstracting from traditional media will lead to wrong conclusions. Innovations will make things more complex. For example, commercials and advertising are indeed information goods so that there are some who are willing to pay to receive them. Why not charge for advertisements. That is indeed what CyberGold and other pioneers are attempting to experiment. The electronic marketplace presents a unique opportunity to improve the way we disseminate product information (i.e. advertisements), charge consumers (and ultimately integrating the process into market research, product development and the next stage of marketing in a seamless process). The problem with spam is not only that they are distributed randomly but also that they have no market prices (or ways to transact). If there is a way, some spam receivers may be paid to receive advertisements; others may be willing to pay to receive them. The legacy of the broadcast and print media has been that of artificially coupling advertisements with contents because of inability to charge or the economics of physical market. An efficient market will allow prices of these two different products to be determined separately.

What questions should I ask when selecting a web designer?

You don't really want a college student who has just learned HTML. You need a website design firm that will take time to understand your business, and has previous experience. Here are some important questions: What are the names and phone numbers of other small business clients you have served? You'll learn a lot by asking these references, "Would you hire this person to work for you on another project?" What are the URLs of some websites you have designed? Then ask your web-savvy friends to evaluate the sites with you. What kind of website do I really need to accomplish my objectives as a business? Unless the designer knows how to accomplish business purposes with a website, she is of no use to you.

Do you have a contract that outlines our agreement? Get it in writing. What will this cost, how long will it take, and at what points will various payments be due? Define what will be accomplished before each payment is made. Will you register the site with search engines and perform any other marketing tasks? If this isn't included in their services, learn to do it yourself or find where to outsource it. A website without marketing is like a car without gasoline - nice to admire, but of no use at all.

What is a cookie and how does it help an e-business?

A cookie is a small amount of information that is stored on your computer when you visit a website, see a banner, purchase something at an online store, etc. Cookies help the e-business identify you the next time you come to the site so it can greet you by name, show you a banner you haven't seen yet, remember your username and password, etc. Cookies can also track how a visitor got to your website, so when he makes a purchase you can pay a commission to the affiliate who sent him. Some people see cookies as an insidious breach of privacy - and it can be when connected with databases like DoubleClick's whose information collection spans many thousands of websites. Cookies smooth eCommerce for both the customer and the business. Now if they could just perfect a way of e-mailing me a chocolate chip cookie for every site I visit, I would be really happy.

What is the electronic marketplace?

Electronic markets ordinarily refer to online trading and auction, for example, online stock trading markets, online auction for computers and other goods. The electronic marketplace refers to the emerging market economy where producers, intermediaries and consumers interact electronically or digitally in some way. The electronic marketplace is a virtual representative of physical markets. The economic activities undertaken by this electronic marketplace collectively represent the digital economy. Electronic commerce, broadly defined, is concerned with the electronic marketplace. The electronic marketplace resembles physical markets (the one we know) in many aspects. As in physical markets, components of the digital economy include: players

(market agents such as firms, suppliers, brokers, shops and consumers) products (goods and services;) and processes (supply, production, marketing, competition, distribution, consumption, etc.). The difference is that, in the electronic marketplace, at least some of these components are electronic, digital, virtual or online (whichever term you may prefer). For example, a digital player is someone with an email or a Web page. Purely "physical" sellers may be selling a digital product, e.g. digital CD-ROM. One that sells physical products at a physical store may offer product information online (thereby allowing consumers to "search online"), while production, ordering, payment and delivery are done conventionally. Currently, the emphasis is on the core of the electronic marketplace where everything (i.e. all value chains or business activities) is online. But, if any aspect of your business or consumption dwells upon the digital process, you are already part of the electronic marketplace. That is, almost all of us are already players in the electronic marketplace!

How is the electronic marketplace different from physical markets?

Answer: The answers to this question provide us with a preview to what we try to achieve in this FAQ: comparing the digital economy with the physical economy, and coming up with a better understanding of the new market. Business strategies must be based on a sound understanding of the market dynamics, for which we rely on standard economics. More in-depth discussion is presented in our book, "The Economics of Electronic Commerce". Is the electronic marketplace a perfect, frictionless market? Will transaction costs become zero? Will the market be perfectly competitive, yielding lowest possible prices? Should the market be left alone to march toward those predictions? On the surface, the electronic marketplace appears to be something of a perfect market, where there are numerous, worldwide sellers and buyers, who in turn have bountiful information about the market and products, and where no intermediaries are necessary.

Such a market is very competitive and efficient (with no need to regulate or intervene arbitrarily). However, closer looks indicate that consumer searches are not very efficient (due to the cost of having a complete, easily searchable database, and because sellers may not provide all information necessary). Although wholesalers and retail outlets may not be needed, other types of intermediaries appear to be essential for the electronic market to function adequately (e.g. certification authorities, electronic malls who guarantee product quality, mediators for bargaining and conflict resolution, etc.). All these brokers add transaction costs. Will prices be lower? Digital products are highly customizable due to its transmutability, i.e. easy to revise, reorganize and edit. With information about consumer tastes, products will be differentiated (or customized, e.g. custom news). The number of potential sellers may be low, or even only one, in a highly differentiated and segmented market, and the price will tend to approach the maximum price the buyer is willing to pay. (In economic terms, sellers practice first degree or perfect price discrimination, which is exact opposite to the result we get in a perfectly competitive market.) How about the often heard zero marginal cost argument that digital products will be priced at zero (given out free) because their reproduction costs will be minimal? The price will approach zero only if (1) the marginal cost is really approaching zero and (2) there is effective competition among sellers. We will discuss the microeconomics of digital products in Section D1 in detail. In short, the marginal cost of a digital product may be substantial. Even when it is close to zero, prices in a non-competitive market will be determined more by demand (or the buyer's willingness to pay) than by marginal cost. Unless we think all information and digital products are of no value, they will never be priced at zero by sellers with market power. (Giving out free products today does not mean that sellers are doing it because the costs are zero nor that they will continue to do so when they monopolize the market.)

How do I choose keywords and summaries that will get my site more hits?

On every webpage you can place META tags in which you specify keywords and descriptions that some search engines use to index and display your webpage. (We're talking about HTML tags here, so if your eyes glaze over, I understand.) While there's a whole science to optimizing pages for search engines, here are some simple steps. First, try to determine the words that your potential customers are likely to use to find your kind of business in search engine. Make a list of 10 or 20 of the top such words or phrases. Second, make sure your TITLE tag is descriptive AND includes as many of the keywords as are appropriate. Not "Acme Manufacturing" but "Acme Manufacturing - bicycle seats, handlebars, and safety reflectors". Should be between 5 and 20 words. Third, list the keywords in your keyword META tag, separating words and phrases with commas. Example: Use plural instead of singular, and don't repeat the same word twice in a row. Keyword spamming may get you removed from the search engine. Fourth, compose a description that uses as many of your keywords as possible, while eliminating throw-away words that will never be searched on, such as "the, and, that." You don't need to repeat the words in the title, but it won't hurt. Example: About 25 words is a good length. Some search engines display this description if you've included it on your page. Not all search engines consider keyword and description META tags, but if you consistently take these steps with each page, you WILL place higher on search engines and receive more targeted traffic.

I am searching for government grant money to finance a new business, a non-profit group or business enterprise. How do I go about finding available grants? A good place to start for grant information is: Catalog of Federal Domestic Assistance (<http://www.gsa.gov/fdac>). The Catalog of Federal Domestic Assistance (CFDA) is a government-wide compendium of federal programs, projects, services, and activities, which provide assistance or benefits to the American public. It contains financial and non-financial assistance programs administered by departments and establishments of the federal government.

All these electronic payment systems, are they any different?

There are dozens of electronic payment systems proposed or already in practice. But they can be grouped into three based on what information is being transferred online. The first type uses a trusted third party that maintains all sensitive information (such as bank account and credit card numbers) for its clients, which include both buyers and sellers. When there is a transaction, order information is transmitted along with information about payment confirmation and clearing, all of which do not include sensitive information. In effect, no real financial transaction is done online. The primary example of this type is First Virtual. In this type of system, the information need not be encrypted since financial transactions are done completely off-line. The second type is an extension of the conventional notational fund transfer. In credit card or check transactions, sensitive information is being exchanged. For example, you give your credit card to a merchant, who sends the card number through phone line and receives confirmation. Banks meanwhile receive the same information and adjust buyer and merchant's accounts accordingly. The information being transmitted online in this case is encrypted for security. The primary example is the use of digital credit cards (e.g. CyberCash and VISA/Mastercard's SET-based transactions). This type is becoming the mainstay of online payment methods because consumers are familiar with this system and current players have vested interest in extending that system to the Internet. The problem with transactional security has been overly played on the traditional media, but with proper caution and encryption, the Internet may be more secure than phone lines for this same old payment methods. (Can you encrypt your voice when you give your credit card number over the phone? Can you be sure who the other person is?) The third type includes variations of digital cash, electronic money and coins. What distinguishes these systems from the other two is not simply the anonymity they afford, but the fact that what is being transferred is value or money itself. With digital currency, intercepting a message is an outright theft of your property, not just information.

What's the deal with digital currency? Do we need them?

Digital money, currency or coins are but an encrypted serial number representing money, but money in all sense since they are convertible to real money (e.g. U.S. dollar) if desired. (Just as U.S. dollar bill is only a paper with funny graphics.) It took hundreds of years before people accepted paper money (and checks) as payment. Digital currency will become dominant when paper-based economy finally turns into the digital economy. In the short run, digital money is just a convenient form of existing money since digital money is created against existing money. However, in the long run, digital money may be created on its own if users accept it on its face value, which will be determined by how dependable its issuers are. All monies are only as good as their issuers. Why do we need digital currency? Not because it is the ultimate in anonymous money. Rather, digital money is necessary if we are to operate fully in the digital marketplace. Non-currency electronic payment systems will be sufficient for some transactions; for others, digital currency will be more efficient, e.g. microtransactions as well as anonymous trades. Furthermore, digital currency is very flexible since it can be made to behave like electronic checks or anonymous cash as situation warrants. Electronic checks or digital credit cards become useless if their sensitive payment information is erased, or become costly if that information is hidden and calls for an elaborate process of verification.

Smart cards, what are they good for?

The smart card will emerge as the ultimate interface device for the mobile digital economy. It will hold your cash, ID information, house and office keys, subway tokens, all types of preference files (for house temperature setting, driver seat setting, etc.) and other information. You will exchange these information and digital products with other people, transact business, present to police officers, check into a hotel or a sports arena, and all other things yet to be imagined.

I want to accept credit cards at my website, but I don't want to pay for a merchant account. Where can I find inexpensive credit card processing on a secure server?

You'll probably have to get a merchant credit card account AND credit card processing on a secure server. Here's how it works.

- You secure a merchant account with a bank, and the bank contracts with a firm that processes credit card transactions for them.
- You contract with a web hosting service for a secure server for your order pages.
- You contract with a payment gateway company (such as VeriSign.com) that provides an Internet bridge from your order pages to the bank's processing company.

Sometimes, however, you can find a service that combines (2) and (3) together. While it is possible to pay a company to handle the merchant credit card transactions for you, they may take an 8% to 15% chunk of the total transaction, and in some places this kind of "factoring" is illegal. If you plan to sell much over the Web, secure your own merchant account. Start with your own bank. If they don't favor Internet businesses, try Wells Fargo Bank (<http://www.wellsfargo.com>), Heartland Payment Systems (<http://www.heartlandpaymentsystems.com/>), or First Bank of Beverly Hills (<http://www.fbbh.com>). Independent sales organizations may promise to get you a merchant account, but be careful of high commissions ("application fees"), hidden fees, or penalties if your business folds before their "lease period" is over. Be careful you aren't sold the wrong services for your needs. Shop carefully.

How should we protect identifiable information about us?

Computer technologies enable sellers to find out more about their customers while at the same time they enable buyers to search and receive product information. The balance is certainly in favor of sellers since product information are proprietary, implying they are offered only if sellers want to. On the other hand, information about online consumers seems to flow easily

to sellers if technologies are not employed to block such transfer. Since there are sizable gains to be made from refining consumer demand information, collecting information about consumer preferences is widely promoted, and electronic commerce provides a unique opportunity for this. However, while this information is clearly helpful to the sellers and researchers, a standard must be established to protect consumers. Presently, simple notification and disclosure to consumers are all that is needed for information collectors to use such consumer information. Rather than relying on regulatory solutions, however, innovative concepts are being tested in electronic commerce. One new idea is to give consumers the right to sell their own information. As discussed in Section 8.3, this market-based solution turns personal information into a marketable commodity. Many online services are offered in return for divulging personal information. In that case, the price for that information will be equal to the value of the service offered. Some consumers may use the service heavily, implying a high price for their information. Others may give out their information for a service they seldom use, signaling a low value for their personal information. Going beyond reporting names and addresses, consumers may be willing to sell all types of consumption data in the future if the price is right. In a way, consumers will become information sellers by participating in market research or focus groups.

Why should I care for privacy?

At least in one sense, selling personal consumption data may be detrimental to consumer welfare. In electronic commerce, such data will be directly linked to purchasing and price negotiation. With demand known, sellers may refuse to lower prices below what they think is a consumer's valuation. However, rather than going back to a market with imperfect demand and inferior product quality, the market may be able to produce an equitable and efficient result. For example, the potentially higher sale price can be partly compensated by a higher payment for personal information.

This also demonstrates a reason why consumer information may have to be priced and traded in the market. A slew of economic questions arises regarding prices and the efficiency in such a market. Perhaps, the vigor evidenced in the debate on privacy and anonymity among legal scholars, government officials and free speech activists might guide economists to this task in the future.

Is eCommerce safe?

Although Internet security breaches have gotten a lot of press, most vendors and analysts argue that transactions are actually less dangerous in cyberspace than in the physical world. That's because retail sales employees who handle card numbers cause a great deal of credit card fraud. eCommerce systems remove temptation by encrypting the numbers on a company's servers. For merchants, eCommerce is actually safer than opening a store that could be looted, burned, or flooded. The difficulty is in getting a customer to believe that eCommerce is safe for them. Consumers don't really believe it yet, but experts say eCommerce transactions are safer than ordinary credit card purchases. Every time you pay with a credit card at a store, in a restaurant, or over an 800 number - and every time you throw away a credit card receipt - you make yourself vulnerable to fraud. But ever since the 2.0 versions of Netscape Navigator and Microsoft Internet Explorer, transactions can be encrypted using Secure Sockets Layer (SSL), a protocol that creates a secure connection to the server, protecting the information as it travels over the Internet. SSL uses public key encryption, one of the strongest encryption methods around. A way to tell that a Web site is secured by SSL is when the URL begins with https instead of http. Browser makers and credit card companies are promoting an additional security standard called Secure Electronic Transactions (SET). SET encodes the credit card numbers that sit on vendors' servers so that only banks and credit card companies can read the numbers. No eCommerce system can guarantee 100-percent protection for your credit card, but you're less likely to get your pocket picked online than in a real store.

What should be in a copyright statement on the website I've created?

I can give general advice, but consult your attorney about your country's specific copyright laws. By US law, an article is protected by copyright when it is published, whether or not you list copyright information. You can register your documents with the Library of Congress, though few do this for websites. The following statement should be adequate for most purposes: "Copyright © 2000, by John B. Doe. All rights reserved." The primary purpose of your copyright statement is to put readers on notice that this is your property. Since websites are so easy to copy, I usually go further and say, "Text, graphics, and HTML code are protected by US and International Copyright Laws, and may not be copied, reprinted, published, translated, hosted, or otherwise distributed by any means without explicit permission." It's difficult to enforce your copyright in court -- the legal costs would be excessive. However, it's usually sufficient to send violators a stiff note demanding that they remove your copyrighted documents from their site immediately. If they don't, contact their web hosting service. For a hosting service to knowingly host stolen materials saddles them with legal liability. Few are willing to risk it, so they usually force their subscribers to remove the offending materials immediately.

I am interested in federal government procurement with respect to becoming a vendor for the agencies that use Electronic Commerce to conduct business. [Where can I find more information?](#)

Vendors interested in providing products or services to the federal government should learn more about the General Services Administration's Federal Supply Schedule. Under the schedules program, GSA enters into contracts with commercial firms to provide supplies and services at stated prices for given periods of time. Orders are placed directly with the schedule contractor, and deliveries are made directly to the customer. To learn more, visit <http://www.gsa.gov>.

What is Electronic Data Interchange (EDI)?

Electronic Data Interchange (EDI) is the computer-to-computer exchange of business information by means of standardized transaction sets that have been developed and used over the years in the private sector. Through the use of EDI, transactions can be completed more cheaply and accurately than is possible through the exchange of paper documents.

What are the Benefits of Using EDI?

Doing business electronically can result in many benefits for your organization, including enhanced strategic relationships, reduced purchase prices and procurement costs, better customer service, shorter lead times and lower inventory levels. By automating communications between your organization and your trading partners, electronic data interchange (EDI) can help you realize these benefits and position your company for a competitive advantage. The benefits of EDI fall into two categories: (1) tactical, enabling your organization to cut operating costs and increase efficiency; and (2) strategic, putting distance between your organization and the competition. Specific tactical benefits, which can arise from the successful implementation of EDI, include: Reduced purchase prices, procurement and inventory costs Delivery of documents in seconds instead of days with far less likelihood of them getting lost or damaged, thus improving customer service and reducing postage and express delivery service costs Shortened order lead times while eliminating clerical tasks and possible keying errors The ability to electronically send invoice and receive financial transactions such as invoices and payments directly to and from your organization's accounting system A broad choice of system configurations, from PC-based to mainframe-based systems customization of forms to meet your needs and the needs of your trading partners Communication across industry sectors with one common standard The ability to electronically communicate with thousands of companies without concern for hardware compatibility complete auditing, billing and security functions.

Strategic benefits stem from: The ability to serve customers better, which for private sector firms can raise the value of their products or services and help increase market share. Government agencies can increase the effectiveness of customer service within current budgetary limitations. The capability to track market trends as they develop, leading to focused, more responsive market strategies for private firms and the ability for governments to anticipate future constituent needs or take advantage of efficiency or cost reduction opportunities.

How do we successfully implement EDI in our company?

Executive commitment is the most important factor in determining the success of an EDI program. By its very nature, EDI can change the way an organization does business. To enable such beneficial changes the executive driving a company's EDI program must build a common understanding regarding EDI among all affected departments, divisions and other organizational units. An EDI implementation consists of an internal and an external phase. During the internal phase, your organization selects and implements the necessary translation and communications software and services, accomplishes the appropriate applications integration and determines what procedures and guidelines are needed to support electronic business practices. The external phase involves motivating your trading partners to participate in your program. Although the number of companies using EDI is constantly growing, you may still have to sell EDI to your trading partners. Moreover, you will need to coordinate your program with those of your trading partners, agree on EDI terms and conditions and test your systems. In selecting an EDI VAN and translation software, you should consider the requirements of both phases. Your EDI vendor not only should be able to provide solutions for your internal EDI implementation, but also should be able to support your trading partner enabling/implementation efforts.

What is the Central Contractor Registration (CCR)?

The CCR is a central database with information about Department of Defense (DoD) trading partners. This allows DoD purchasing agents, contracting officers, and accounting officers to quickly and consistently find information about DoD trading partners. The CCR was created so that businesses would not have to register with each and every DoD agency they wished to do business with. By having their information in one central database, trading partners need only inform the contracting or purchasing officer that they are CCR registered and that officer can then look out the information they need to do business with them.

What are enabling technologies?

The electronic marketplace is where information-age commodities (digital, knowledge-based products) are produced, exchanged and consumed. For the market to function, it requires substantial investments in market infrastructure that is capable of supporting transactions efficiently. The market infrastructure includes telecommunications networks (telephone, cable, wireless, etc.) that provide communication and delivery services. Another key component is that of interface devices and technologies such as computer hardware, software and digital appliances. Network and computer technologies in turn enable various EC applications and other support services such as electronic payment systems. In this sense, networks and computers are enabling technologies of electronic commerce. Enabling technologies will change and improve: messages have been delivered by person, postal service, telephone, fax, and now by email. Transportation and product delivery systems have been innovated over time. Just as likely, today's Internet and computing platforms will change. But these changes will not affect the fundamental nature of the digital economy. The electronic commerce revolution happened on the Internet because of its advantages such as open, distributed networking. Although technologies will determine the boundary of what processes can be implemented, it is the process we find useful that will shape the future of these technologies and the economy.

What is the convergence?

Both telecommunications networks and computer technologies are heading toward the convergence. In short, the convergence is a process that allows hitherto incompatible devices to talk to each other (interoperable), products to be interchangeable and processes to be integrated. The underlying impetus for convergence is the digital technologies or digitization; its effect is much wider than a simple network convergence we are aware of today. Product Convergence Today, digital products include voice signals, TV programs, musical CDs, videos, books, magazines, news and all types of paper-based information, database, computer software and games. Room and access keys are digital, stored on a smart card; IDs and personal information are digital; and money is digital. All these digital products are essentially made up of ones and zeros (the on-and-off dual states of an electronic charge), capable of being transported via a telecommunications network. Network (Infrastructure) Convergence Telephone, coaxial cable, broadcast, satellite and wireless networks are all capable of sending and receiving the same digital signals. When a telephone network is busy, one can re-direct the voice to cable or wireless networks. Market Convergence Suddenly, several regulated monopolies are facing potential competition from those who used to be in different markets: telephone companies and cable TV operators are potential competitors. Internet service providers and TV broadcasters may be fighting for Internet access. The convergence in products and networks has resulted in breaking down old market boundaries, in addition to lowering geographical market boundaries. (Of course, this potential competition will become real only if these firms do indeed compete. Another type of convergence, i.e. mergers, or artificial market boundaries will sustain monopoly status.) Process Convergence We use process convergence in the sense of integration where different processes (or phases in a value chain) are integrated into a seamless process. For example, online advertising gets an immediate feedback from its recipients, which is then used to modify production process (customization). In broadcasting, advertising is almost separated from market research or any other business processes.

The convergence brings about new opportunities as well as uncertainties. As products are digitized, they acquire new characteristics increasing their appeal. For example, a CD-ROM version of an encyclopedia provides search and link capabilities far exceeding the cross-indexing features provided by book versions. New products mean new uses, new customers and new ways of doing business. Many focus on the opportunity to expand their business, but the novelty also creates uncertainty. For example, as the telecommunications infrastructure converges, traditional boundaries among telephone companies, cable operators and satellite operators become unclear. These companies are experimenting video-on-demand services, interactive television, cable modems, online shopping, video dialtone, etc., to gauge consumer response and the future profitability in their widening playing field. Not knowing consumer demand and competitors' strategies, however, they are hesitant to plunge into the unknown. On the other hand, Bill Gates of Microsoft, Craig McCaw, who founded McCaw Cellular Communications, and other investors are willing to take a risk in the future of converging infrastructure. Their enterprise is called Teledesic Corp., which will invest almost \$10 billion to place 840 low earth-orbiting satellites around the earth. The plan is to offer broadband connection, broadcasting, video conferencing and other telecommunications services worldwide through its satellite network. The project's possible payoffs may be as large as the size of necessary investments.

Is the government going to regulate eCommerce?

Last year, the Senate overwhelmingly approved the Internet Tax Freedom Act, which imposed a three-year moratorium on new Internet taxes. This act bars state or local governments from imposing new taxes on access to the Internet and data flowing over the Internet, as well as prohibits any new eCommerce taxes. Local legislators are the ones chopping at the bit to get a cut of the eCommerce action, and they are not all waiting for the end of the three-year moratorium. The National Association of Counties recently unanimously approved a resolution asking Congress to impose a sales tax on all online purchases. Local governments estimate that \$5 billion annually are already lost to out-of-state mail order business, and with the rapid rise of ecommerce,



this number will only increase. While there have been some rumblings of impatience in Congress, the federal government is urging local and state officials to respect the Internet Tax Freedom Act's ban. It is very likely that when the moratorium expires, the taxation situation will be in for some changes. There is an advisory committee already meeting to work on post-moratorium issues, and many ideas are being discussed. The Advisory Committee on Electronic Commerce was mandated by the Internet Tax Freedom Act, and it will consider such topics as a flat national Internet tax and ways to simplify sales tax for online purchases. While the feds favor no additional taxes for now, state governments are grappling with the issue individually. Texas taxes not only Internet access charges, but also all the money collected when content providers sell online subscriptions, as well as the fees charged by Web developers for building sites. On the other hand, New York decreed that Internet access charges are not subject to state sales or telecommunications taxes. Currently nine states tax Internet services, and six states, including California, have moratoriums on Internet taxes. Most states still don't know what to do, according to the accounting and consulting firm Deloitte & Touche, which published a comprehensive guide called "Taxation in Cyberspace." For now, eCommerce providers such as AT&T are treating Web purchases much like mail-order sales. The providers collect taxes if the merchant has a significant presence in the state where the buyer resides. "There are lots of gray areas," acknowledges James Kwock, a Web services marketing director with AT&T Networked Commerce Service, "but I don't feel any pressure from tax lawyers yet." There's another problem with Net taxes: the Internet crosses international borders as easily as it skips over state lines. Japan agrees, but other countries have already indicated a willingness to regulate the Net. For example, France has long tried to mandate the use of French on Web sites, while Germany has attempted to stamp out both pornography and neo-Nazi materials online, and Australia has regulated pornography as well. Getting international agreement on Net taxes may be the biggest hurdle to overcome.

Are there any technology standards for eCommerce?

In addition to the alphabet soup of standards that governs the Internet, eCommerce employs several of its own standards, most of which apply to business-to-business transactions. Electronic Data Interchange (EDI): Created by the government in the early 1970s and now used by 95 percent of Fortune 1,000 companies, EDI is a common document structure designed to let large organizations transmit information over private networks. EDI is now finding a role on corporate Web sites as well. Open Buying on the Internet (OBI): This standard, created by the Internet Purchasing Roundtable, is supposed to ensure that all the different eCommerce systems can talk to one another. OBI, which was released by the OBI Consortium, is backed by leading technology companies such as Actra, IntelliSys, Microsoft, Open Market, and Oracle. The Open Trading Protocol (OTP): OTP is intended to standardize a variety of payment-related activities, including purchase agreements, receipts for purchases, and payments. It was created as a competing standard to OBI by a group of companies, including AT&T, CyberCash, Hitachi, IBM, Oracle, Sun Microsystems, and British Telecom. The Open Profiling Standard (OPS): A standard backed by Microsoft and Firefly, OPS lets users create a personal profile of preferences and interests that they want to share with merchants. The idea behind it is to help consumers protect their privacy without banning online collection of marketing information. Secure Sockets Layer (SSL): This protocol is designed to create a secure connection to the server. SSL uses public key encryption, one of the strongest encryption methods around, to protect data as it travels over the Internet. SSL was created by Netscape but has now been published in the public domain. Secure Electronic Transactions (SET): SET encodes the credit card numbers stored on merchants' servers. This standard, created by Visa and MasterCard, enjoys wide support in the banking community. The first SET-enabled commerce is already being tested in Asia. Trustee: This partnership of companies seeks to build public trust in eCommerce by putting a Good Housekeeping-style seal of approval on sites that don't violate consumer privacy.



I own a new online company and what we need right now is exposure. I was wondering if there are any advertising resources available to me that are free or very inexpensive?

As small business people know, free and inexpensive really mean a lot of sweat equity, but there are several things you can do at low or no cost to promote your online business. Prepare your web pages to be search engine friendly, and then submit them to the main search engines. Find other sites that are complementary to yours and attract the kind of visitors you're looking for and ask the site owners for a reciprocal link. Join a banner exchange program where you show two banners on your site for every one of yours shown on other member's sites. In addition you could send out press releases about a newsworthy event on your site, offer interesting and free content related to what you sell, and try some inexpensive text ads in e-mail newsletters that appeal to the kind of visitors you want.

Online Advertising (DOC)

Advertising and Marketing on the Internet: Rules of the Road (From The Department of Commerce)

The Internet is connecting advertisers and marketers to customers from Boston to Bali with text, interactive graphics, video, and audio. If you're thinking about advertising on the Internet, remember that many of the same rules that apply to other forms of advertising apply to electronic marketing. These rules and guidelines protect businesses and consumers and help maintain the credibility of the Internet as an advertising medium. [The Federal Trade Commission](#) (FTC) has prepared this guide to give you an overview of some of the laws it enforces.

- Advertising must tell the truth and not mislead consumers.
- In addition, claims must be substantiated.

General Offers and Claims Products and Services

The Federal Trade Commission Act allows the FTC to act in the interest of all consumers to prevent deceptive and unfair acts or practices. In interpreting Section 5 of the Act, the Commission has determined that a representation, omission, or practice is deceptive if it is likely to:

- mislead consumers or
- affect consumers' behavior or decisions about the product or service.

In addition, an act or practice is unfair if the injury it causes, or is likely to cause, is:

- substantial,
- not outweighed by other benefits, and
- not reasonably avoidable.

The FTC Act prohibits unfair or deceptive advertising in any medium. That is, advertising must tell the truth and not mislead consumers. A claim can be misleading if relevant information is left out or if the claim implies something that's not true. For example, a lease advertisement for an automobile that promotes "\$0 Down" may be misleading if significant and undisclosed charges are due at lease signing.

In addition, claims must be substantiated, especially when they concern health, safety, or performance. The type of evidence may depend on the product, the claims, and what experts believe necessary. If your ad specifies a certain level of support for a claim - "tests show X" - you must have at least that level of support.

Sellers are responsible for claims they make about their products and services. Third parties - such as advertising agencies, website designers, and catalog marketers - also may be liable for making or disseminating deceptive representations if they participate in the preparation or distribution of the advertising, or know about the deceptive claims.

- Advertising agencies or website designers are responsible for reviewing the information used to substantiate ad claims. They may not simply rely on an advertiser's assurance that the claims are substantiated. In determining whether an ad agency should be held liable, the FTC looks at the extent of the agency's participation in the preparation of the challenged ad and whether the agency knew or should have known that the ad included false or deceptive claims.
- To protect themselves, catalog marketers should ask for material to back up claims rather than repeat what the manufacturer says about the product. If the manufacturer doesn't come forward with proof or turns over proof that looks questionable, the catalog marketer should see a yellow caution light and proceed appropriately, especially when it comes to extravagant performance claims, health or weight loss promises, or earnings guarantees. In writing ad copy, catalogers should stick to claims that can be supported. Most important, catalog marketers should trust their instincts when a product sounds too good to be true.

Other points to consider:

Disclaimers and disclosures must be clear and conspicuous. That is, consumers must be able to notice, read or hear, and understand the information. Still, a disclaimer or disclosure alone usually is not enough to remedy a false or deceptive claim.

- Demonstrations must show how the product will perform under normal use.
- Refunds must be made to dissatisfied consumers if you promised to make them.
- Advertising directed to children raises special issues. That's because children may have greater difficulty evaluating advertising claims and understanding the nature of the information you provide. Sellers should take special care not to misrepresent a product or its performance when advertising to children. The Children's Advertising Review Unit (CARU) of the Council of Better Business Bureaus has published specific guidelines for children's advertising that you may find helpful.

[Dot Com Disclosures: Information About Online Advertising](#), an FTC staff paper, provides additional information for online advertisers. The paper discusses the factors used to evaluate the clarity and conspicuousness of required disclosures in online ads. It also discusses how certain FTC rules and guides that use terms like "writing" or "printed" apply to Internet activities and how technologies such as e-mail may be used to comply with certain rules and guides.

Protecting Consumers' Privacy Online

The Internet provides unprecedented opportunities for the collection and sharing of information from and about consumers, but studies show that consumers have very strong concerns about the security and confidentiality of their personal information in the online marketplace. Many consumers also report being wary of engaging in online commerce, in part because they fear that their personal information can be misused.

These consumer concerns present an opportunity for you to build on consumer trust by implementing effective voluntary industry-wide practices to protect consumers' information privacy. The FTC has held a number of workshops for industry, consumer groups, and privacy advocates to explore industry guidelines to protect consumers' privacy online.

In June 1998, the FTC issued [Online Privacy: A Report to Congress](#). The Report noted that while over 85 percent of all websites collected personal information from consumers, only 14 percent of the sites in the FTC's random sample of commercial websites provided any notice to consumers of the personal information they collect or how they use it. In May 2000, the FTC issued a follow-up report, [Privacy Online: Fair Information Practices in the Electronic Marketplace \(PDF file\)](#). While the 2000 survey showed significant improvement in the percent of websites that post at least some privacy disclosures, only 20 percent of the random sample sites were found to have implemented four fair information practices: notice, choice, access, and security. Even when the survey looked at the percentage of sites implementing the two critical practices of notice and choice, only 41 percent of the random sample provided such privacy disclosures. You can access the FTC's privacy report at <http://www.ftc.gov/>.

The [Children's Online Privacy Protection Act \(COPPA\)](#) and the FTC's implementing Rule took effect April 21, 2000. Commercial websites directed to children under 13 years old or general audience sites that have actual knowledge that they are collecting information from a child must obtain parental permission before collecting such information.

The FTC also launched a special site at <http://www.ftc.gov/bcp/edu/pubs/business/idtheft/bus45.shtm> to help children, parents, and site operators understand the provisions of COPPA and how the law will affect them.

<http://www.sba.gov/smallbusinessplanner/manage/technology/index.html>

Creating A Business Plan - Writing The Plan

What goes in a business plan? The body can be divided into four distinct sections:

- 1) Description of the business
- 2) Marketing
- 3) Finances
- 4) Management

Agenda should include an executive summary, supporting documents, and financial projections. Although there is no single formula for developing a business plan, some elements are common to all business plans. They are summarized in the following outline:

Elements of a Business Plan

1. **Cover sheet**
2. **Statement of purpose**
3. **Table of contents**

I. The Business

- A. Description of business
- B. Marketing
- C. Competition
- D. Operating procedures
- E. Personnel
- F. Business insurance

II. Financial Data

- A. Loan applications
- B. Capital equipment and supply list
- C. Balance sheet
- D. Breakeven analysis
- E. Pro-forma income projections (profit & loss statements)
- F. Three-year summary
- G. Detail by month, first year



- H. Detail by quarters, second and third years
- I. Assumptions upon which projections were based
- J. Pro-forma cash flow

III. Supporting Documents

- A. Tax returns of principals for last three years Personal financial statement (all banks have these forms)
- B. For franchised businesses, a copy of franchise contract and all supporting documents provided by the franchisor
- C. Copy of proposed lease or purchase agreement for building space
- D. Copy of licenses and other legal documents
- E. Copy of resumes of all principals
- F. Copies of letters of intent from suppliers, etc.

Case Study - Online College Recruiting and Marketing – Web Promotion, Strategy, and Ethics

Effective Internet Marketing and Search Engine Placement for College Admissions

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After several years of using online recruiting techniques, researching the area of Internet marketing, and consulting with companies regarding search engine ranking, we have made many observations about the evolution of the Internet as a tool for marketing to students and targeting enrollment for new admissions.

Search Engines - Your College site should be easily found by the potential candidates and alumni on targeted search engines or directories while considering these factors:

- The Top Engines: If you go to <http://www.searchenginewatch.com> you will find the Net Ratings which will explain the market share of the following search engines and directories along with exposure and overlap of surfers. See Jupiter Media Metrix Ratings . Yahoo, MSN, AOL, Google, InfoSpace, WiseNut, Overture, and a few others have the widest appeal to the potential recruiting market. If you have followed the search engine industry, the growth or decline of search engine and directory market share has been very dynamic.
- Variables: such as domain name , keyword rich text, and meta code in the html source code affect your college exposure dramatically : Search engines use different methods (Algorithms) of listing your web sites and ranking them when a term or word search is done for “colleges, ranking, admissions”. Positive variables include: the name of your domain and if it is germane to the search terms, the title of the page, the meta tags which include you site description and keywords, the text and content of the page, image file names, alt tag text, and link popularity. As a note, the search engines and directories change the algorithms and ranking criteria from time to time. Some major engines use a partner to provide their search results, and the partner can

change from time to time. Thus, the variables and algorithms are not static and IT, webmasters, and college departments need to actively watch and innovate search engine ranking strategy.

- Pay for Inclusion or Pay Per Performance Engines and Programs: Yahoo and Overture have become increasingly important to website performance and targeted visitors. Many search engines such as Looksmart (which provides results for MSN) and Overture which sponsors results for AOL and Yahoo have suddenly become a strategy to outrank the webmasters because you have paid per click for your visitor and sponsored a listing on the first page of results.
- Your College Domain Name and Web Address: A fair percentage of your web visitors will locate your home page by simply typing the name of the college into the browser coupled with dot edu. The domain name and marketing of your home page is addressed in later in this article.

Exposure to the High School Students and Potential Applicant Pool

The youth of today is much more inclined to use the Internet to research colleges. It is the nature of the Internet Culture for the new generations. Children are trained to use the Internet in grade school and high school. They will research and visit colleges from the comforts of their home or the library. In light of this, you may have a more informed candidate for admission.

Using recent focus groups in my courses online and onsite, recent high school students enjoy the degree of privacy in searching online and using online forms. There is less interaction with people using this method. They simply need to fill out the information online.

Marketing The University Online, Benefits, Search Keywords

It is the job of the institution to integrate the information below with all web pages related to the university website or admissions. However, there is a potential linguistics issue because students may be searching for football or free tuition when the university site uses traditional terms in their text and web code such as Athletics and Financial Aid. In sum, the universities must target the search engine search “terms of art” that youth may use in seeking out a college to attend.

- Accreditation
- IT Computers and Wireless Capability
- Disability Services
- International Appeal or Accreditation
- Cultural Aspects of Your Locale and University
- Programs of Interest to Students
- Athletics and Sports
- Degree Programs and Degrees Offered along with Majors of Interest
- Financial Aid/Scholarships
- Requirements for Applications, Acceptance, and Curriculum
- Abroad Programs
- Grade Curves or Average GPA
- SAT or ACT scores
- Affirmative Action and Diversity
- Terms most frequently searched on your university website:
- Dormitories/Dorms/Housing
- Admission standards/admission criteria/standards
- Admission deadlines/application deadlines/deadlines
- Average or acceptable SAT or ACT score ranges
- Advising, Mentoring and Tutoring
- Safety and security of Campus, Dorms, City etc.
- Total Cost Forecasts and Price along with Tuition & Fees
- Junior Year Abroad “JYA”
- AP Exams or Advanced Placement Examinations
- IB - International Baccalaureate
- Transfer Credit and Transfer Courses
- Admission Application/Application
- High School Courses/Course Requirements
- Essay Issues
- Student Recommendations
- Location, Region, City and Amenities
- Campus Tours and Campus Visits
- Directions and Maps (to campus)
- Mailing address/address along with Telephone numbers
- Athletics (then sport name)
- US News Ranking/Ranking/Rank
- Number of Students/Enrollment
- Registration Information

Hard Copy that Promotes Recruiting and Branding to the Online Prospects.

Most universities have facilitated a campaign to include the website or web address with contact information on every piece of hard copy or email that is sent from the University. The issue overlooked is “what is the ease of recall” of the web name. In essence, the producers of marketing copy may want to include a mirror domain that uses a supplemental name or a dot com extension. Overall put your web address or URL on everything from brochures to trucks.

Links and Link Popularity

Many search engines rank sites according to factors that include the amount of links that other sites have back to you. Some sites pick up all links; however, many search engines only observe hyperlinks to your college that are attached to text.

Ranking and Recruitment

This is an interesting subset of admissions. Students are inclined to observe ranking in their decision to attend a college or university. US News, Business Week, Kiplinger, Petersons, and The Financial Times seem to have a temporary monopoly on this.

It is important for colleges and universities to seek out all college ranking opportunities. There are more unofficial rankings out there than you can imagine. Further, some obscure college ranking information sites may out rank the US News and Business Week sites on several engines. Ranking is said to be unfair in many cases, but it is a great way to market your university. Additionally, if you are ranked, you usually have your link listed.

High school students tend to use ranking systems to locate a particular institution within a broad category of similar institutions with regard to quality or value for the cost. Many fewer students report using ranking systems in a true rank order sense, that is, concluding that institution number 1 on the list is really better than is institution five on the list.

Rather, students make a determination of an institution's quality by examining the group of institutions above and below the particular institution looking for the names of institutions whose reputation they understand. In the student's mind, an institution's relative position on the continuum is determined by the company it keeps!

Ease of Use

Admissions sites have always had challenges in incorporating the necessary information to promote themselves and the university. On the main page of the admission and recruiting site, you will want to illuminate benefits, accreditation, ranking or accolades, facilities, housing, tuition pricing, location, phone numbers, and contact names. You will certainly want to implement the use of online forms that your IT department can handle. However, the admissions website will want to limit clutter also. Keep in mind, you want to sell your university, but enrollment websites will also want to allow for the application to be harvested with ease and without too much distraction.

Most university websites are organized in "egocentric" fashion, that is, the organization of materials mirrors the institution's formal organization chart. Thus, a student may have to follow several different pathways from the main portal to find the information they want. For example, the admission function may be in one vice president's portfolio, housing another's and financial aid in a third portfolio. The "egocentric" nature of institutional websites assumes that the prospective student understands the institution's organizational structure – a shaky assumption at best. While arranging information and information layers may make perfectly good sense to those already affiliated with the institution (e.g. current students, faculty, staff and administrators) and those who have already graduated, such an arrangement makes little sense to a prospective student who may be examining a large number of institutions in a short period of time.

Arraying the information from the perspective of where the student is in the admission process makes a good deal more sense. For example, the following array of institutional information is "intuitive" to most high school students in the admission process:

General Information for Prospective Students
Applicant for Admission Information

Accepted Student Information
Enrolling Student Information
Enrolled Student Information

While each of these major divisions may include certain redundancies, the added value of presenting the information in “process sequence” more than outweighs the overhead necessitated by the inclusion of certain redundancies.

Before and After, Testimonials, and Success of Alumni – Focusing On Benefits, Value and Success

Most college marketing focuses on the product – the programs, majors and services provided by the college. This approach often leads to a “so what” reaction on the part of the student. A more effective approach is to focus on the “benefits” and “value” of the experience. Understanding the connection between the educational process and services provided by the institution and the outcomes for individuals involved in those activities refocuses thinking in the desired direction.

One of the most important features of recruiting is to show how your past students and alumni have succeeded. This is done several ways.

- Secure testimonials from powerful and successful alumni
- Show their pictures or put a statement by the alumni on the site.
- On the site, show statistics of how alumni have fared in the salary and employment areas.
- Tie in your academics, graduate programs, and other supplemental profit centers to the site.
- Show the enthusiasm for the university and show the success of the endowment.

Similarly, care needs to be given when presenting vital institutional characteristics. For example, college websites will often address the issue of average class sizes with language like, “the average class size for lower division courses is 25.” Presenting the data this way leaves to the reader the job of determining what the benefits of an average class size of 25 are. Left to their own devices, some prospective students will make the correct connection. Unfortunately, others will not.

However, if this important fact is presented with an explanation of its associated benefit, many more students will understand why the fact is of some significance. For example if the college says, “our average class size of 25 makes it possible for faculty to work closely with individual students, conduct substantive in-class discussions and coach students in their area of interest” the average class size data point takes on a much greater significance.

In constructing a website, it is critical for those responsible for design and content to assume the mindset of the student – benefits need to be articulated and the connections that are intuitive to those inside the academy must be clearly linked for those unfamiliar with the academy.

Search Engine Friendly College Web Sites

- Title – The title of each web page should target specific web surfers.
- Meta Tags – These individualized tags should be in place on all university recruiting and other web pages. It doesn’t matter how inconsequential the information on the page is. In essence, a student could discover you via any major department of the university while surfing.
- Content – The text of each page should be keyword rich with a target audience in mind.
- Headings – The headings and keyword rich text should be closest to the top left of the page and be carefully used throughout the rest of the page.
- URL Names and Extensions – The URL name is very important but the rest of the URL can have significance too. For example, <http://www.tulane.edu/collegeranking.html> Thus, this URL may be more likely to be picked up by a student searching for Tulane’s Rank or College Ranking in general.
- However, colleges need to maintain legal ethics in marketing while aggressively extolling the virtues of their campuses. For instance, your Webmaster could easily target a competitor’s candidates by targeting code, keywords, and meta tags that would allow your site to rank when a student is searching for another college.

Ease of Contact, Contact Us Pages, Response Times, and 800 numbers

We cannot stress the importance of a student coming to a site looking for an application to fill out or looking for an 800 number because they do not have the money to call admissions and ask for a packet. The ability to find the application form, fill it out, send it online, and receive a response, confirmation, or feedback is fundamental to improving upon your success.

While a well designed website can group information by logical phases (e.g. applicant phase) the typical student, no website can accurately sequence information for the demands of an individual student. That said, it is possible to predict a number of the most important items that any student might want at any stage of the process. Access to things like the application for admission, the list of majors, financial aid programs and the institutional catalog are high demand requests. These items should be included on the top layer of the admission website as “process stage independent” selections. For example, while the top layer of the admission website may serve as a portal to those in the applicant or accepted student phase, both of which might provide entry to the university catalog, the direct access to the catalog could also appear as a separate selection on the top page unconnected to any individual process.

As for responses, many colleges and universities have compliance approved (by your legal department) standard responses developed and ready to be emailed or mailed to candidates. Some universities may use auto responders that send specific information to students who submit an email that has certain questions checked (in check boxes or radio buttons) in the submission.

Load Time, Documents, Forms and Other Files

We love beautiful graphics, pictures, fancy design and Flash . However, many students who live in rural areas or who use an inexpensive computer system will use traditional dial up Internet services. The candidate’s dial up, ISP Internet Service Provider, may take 30-45 seconds to download your entire admissions website or home page. Due to time constraints, their patience may run out. Further, if the home page takes 30 seconds to load, and the next click for an application is in a format that cant be translated by the candidate’s computer because they do not have the necessary installed applications, then you have definitely lost a prospect. For example, if the high school surfer has IE8 but all of your forms or other information are in IE5 , a lower version of

Word or other, then the student may not have an hour to download the software to read your files. By in large, admissions should offer forms in several formats.

Universities and Search Engine Listings

Because you are a non-profit or education and research institution, search directories like Google may list all of your web pages in the Google search engine out of respect. Thus, you may as well have all of your forms in html versions online. This may increase your visibility and link popularity. However, I am sure that Universities and Colleges can be banned for spam (over-submitting web sites to search engines). As a note, you may want your site to have links, forms, and other documents in text format because your links on your home page may be cataloged (spidered) by search engines that you submit to. Thus, you have all of your documents on various search engines. This is the sheer importance of proper title, text, content, and meta tag information for each link and page that is listed on your home page.

Link to Your Home Page

You should consult with your IT department and Administration about all other college departmental websites linking back to admissions. This will increase your exposure and search engines will believe that your university is very popular because so many sites have a link reference to your admissions department!

This is critical element in getting the prospective student to a web location that presents information in a logical flow with regard to the admission and financial aid processes. Many prospective students will arrive at a departmental website by having executed a search by discipline field. The search engine they use may return web addresses for particular departments within the institution – useful for providing program specific information but useless for linking the student to the admission process.

Integration of Price, Scholarship, Grant, and Financial Aid Information

Each admissions site should contain clear information on how to apply, the process and turn around time on applications, and acceptance or rejection notices. Moreover, to appeal to all socio-economic classes, each admissions site must clearly explain the possibility of assistance in the area of paying for tuition or finding a job on campus.

Since many students may self select out of further consideration solely on the basis of “published price”, websites should present information on typical financial aid and “net cost” (price less average financial aid) scenarios on the same data displays as published price. This approach may encourage some students to initiate a dialogue that would have otherwise never taken place

Statistics:

Having access to an online password protected statistical information for your websites will help you track your progress from season to season. This information will explain what part of the world your visitors are coming from, what sites are sending you traffic, what they download, the average amount of time they spend on your site, and other information such as in errors or outages on your site.

Closing the Sale to your best Prospects online and in person: Use of Superlatives

Only two things should be said about internet recruiting and the close of the sale. The use of superlatives in internet marketing is frowned upon by search engines. Thus, we should be careful using statements like, “The top school in the Region...” However, aggressive marketing copy on websites that utilizes credentials, benefits, accolades, testimonials, and all other positive bullet points about your university should be used with skill and care. In summary, University websites are doing their job if they are producing leads and applications. In the end, it is the enrolment department’s job to “close the sale” and enroll all extraordinary students who are undecided, looking for financial aid, seeking out competition, and looking for a personal touch. Many students simply want to be convinced of the opportunity and prestige that comes from attending your university.

E-Commerce Payments for Applications and Other College Payments:

In (2001), only 1/10 of colleges accept payments online. Many colleges will probably begin accepting major credit cards. However, there are issues in ecommerce that affect international payments as compared to domestic payments. For example, many countries do not have states or zip codes. Further, when a student pays online from overseas, some credit card companies or merchants will flag the payment or identify it as a security risk. In conclusion, because there is a need and demand, most colleges will research and engage this practice over the next year.

Integration of online applications, online forms, and other submissions - Email and Other Customer Service: The use of email and the savings involved.

Having your student applications online is a way to reduce hard copy expenses and use of paper. Similarly, these forms can be a way for IT to harvest email addresses of other data for sending future mailings and updates. Email for colleges has increased savings in the area of postage, labor, paper, printing expenses, and administrative time. Some colleges rejoice in the savings of some of their seasonal mass mailings. The question to be asked is how far the paperless office strategy can go, and will it become successful in all areas of enrollment management.

Just a few years ago, institutions did not consider email a viable option for communicating with the student. Email addresses were difficult to harvest, volatile and only a small fraction of the prospective students had such addresses. Today, email addresses are routinely collected by mailing list providers, the addresses themselves are more stable and a much higher percentage of the college bound population has such an address than just a few years ago. Email provides a low cost, high speed, communication mechanism for colleges and universities.

Several of the more popular applications of email in college recruitment are listed following

1) Distribution of text documents such as PDF files for information pertaining to majors, financial aid etc. 2) Notification of incomplete applications identifying the documents needed to complete the packet 3) Invitations for college-sponsored events with built in RSVP mechanisms 4) Market research surveys 5) Newsletters containing information related to campus events 6) Rich Text Format Email The extent to which email is used is limited only by the creativity of the admission department. Since the cost is extremely low, it is possible for the admission office to be in constant, interactive contact with members of the target population.

Trademarks, Copyright Notices and Disclaimers:

For the purposes of marketing and ethics online, the university IT department needs to protect themselves in the area of intellectual property, trade names and trademarks, along with copyrights. It is always advisable to have your legal department to provide the proper text, disclaimers, and marks to notify all visitors of potential violations and protections.

As for disclaimers, all admissions and enrollment departments should clarify the use of email, address, name, and other information submitted along with general warranty clarification in using the university website. Admissions may want to illuminate the contractual nature of any agreement with the admissions department of the particular university or college. Moreover, the disclaimers should protect the university in all financial dealings with students.

Search Engine Submission Prices: Generally speaking, these are the major search engines and prices to obtain listing: Yahoo: \$300; MSN 15 cents for sponsored result from Looksmart or \$30 dollars for basic listing in Inktomi; Google: free possible listings or use Google AdWords to sponsor a result; Overture: Bid for sponsored result which may appear on results of Yahoo and AOL; DMOZ Open Directory is a free listing but must be carefully listed. These are just general examples. For dynamic pricing information see: yahoo.com, msn.com, looksmart.com, overture.com, google.com, and aol.com

About George Mentz, JD, MBA, CEC:

Mr. Mentz is a licensed attorney, holds an earned doctorate in international law, and an MBA in International Business. Mr. Mentz or his companies have been quoted or featured in the Wall Street Journal, Financial Times, China Daily, The Hindu, El Norte Mexico, Black Enterprise, and more.

Glossary and Supplement:

Keyword and Content Rich Text: This means that you should have your website text or copy include targeted words or terms of art that people are searching for. We encourage you to include at least four to six paragraphs of informative text on every page (we should use no more than 250 words, absolute minimum: 100). Include the selected keyword phrase multiple times throughout the text because some repetition is of benefit. Again, do not be too aggressive with this. The content must seem natural and search engines will punish an obvious blanket of keywords. Also remember that students and parents are going to read this, and excellent marketing copy sells.

Meta Code or Meta Tags Despite less focus on meta tags by search engines, it takes quality research and effort to provide a strategic title, description, keywords, heading, and alternate tags in the head section (of your web code) of all your pages that may be indexed. All of your university meta tags should be unique and apply to a specific page while targeting specific traffic..

- **Title Tag:** Use 5-12 words to insert a keyword rich title that's relevant to the web page. Begin with keywords, using sentence format. It is important because many search engines utilize the content and copy as the link to your page in search results.
- **Description Tag:** This is important because your descriptive code is often used by search engines as your site description in the search results. Use 14-22 words, starting with several strategic keywords (about 175 characters). Make it compelling and relevant to receive qualified traffic.
- **Meta Keywords Tag:** List your strategic keyword phrases up to a maximum of 740 characters. Use keywords that are germane to the page usually separated by commas.

- **Heading Tags:** Insert these tags at the top of your pages, using strategic keywords relevant to the page. Check the font and size of your text after applying headers.

Alt Tags: Also called image tags because alt tags contain the text that appears when you mouse over an image with your arrow or pointer. Use keywords to describe the image appropriately. Use strategic keywords in the alt tags if possible.

Algorithms: A set of criteria or methodology used by a search engine or directory to rank pages according to what they perceive as the most relevant to a given query. There may be as many as 120 different criteria used including content, sheer placement within the title i.e the third word in the title, keyword density, text placement, use of Meta tags, image file names, use of themes, etc. Each search engine or directory uses their own ranking standards or algorithm, which they change often in an effort to improve how pages are ranked.

URL or Domain Name A domain is another name for an internet address. Domains follow a hierarchy where higher or top-level domains (which usually end with .com, .edu, .gov, .org, .ca, etc.) have web sites or lower-level domains below them that are sub-divided into different usable areas. In general, websites which have their own domain name like <http://www.domain.com>, will often achieve better ranking position than a sub-directory website such as <http://www.domain.com/subnames/>.

Image File Names: All images on a website will have a name. Some search engines observe the names of images as a variable in search results.

Alt Tag Text: A picture or graphics on your web site will allow text to be inserted into it which allows viewers to see the text description as the viewer moves their mouse across the picture in question.

Link Popularity Most search engine algorithms now include link popularity, which started with Google's PageRank. This technology works by first identifying the link structure of the entire Web, then ranking individual pages based on the number and importance of pages linked to them. Identifying your inbound links and increasing the number of important, relevant inbound links is an essential part of your SEO strategy.

Search Engine Partner: A search engine such as MSN may use a partner to deliver results for a search. For example, MSN used Looksmart and Inktomi as a search engine partner. Further, AOL and Yahoo use Google as a search engine partner.

Dot edu. The dot-edu domain category has been restricted to four-year colleges and universities almost since its inception. But about a quarter of community colleges got dot-edu addresses before the restriction took effect. Educause plans to allow the rest of the community colleges to obtain dot-edu addresses.

Mirror Domain: is a domain that will point to an already existing website. The website seen by the visitor is exactly the same no matter which domain name they type into their browser.

Keyword Rich Dot Com extension: This simply means that you should have a keyword rich domain name along with keyword rich sub file names

Hyperlinks or link: hy•per•link (hi-per-link)€n. v.1. Underlined text within an electronic document. When clicked with the mouse, the viewer will be taken to another place. 2. A graphic or part of a graphic that contains a link to another location. 3. The process of creating a link that will take the viewer to another location.

Main Portal or Portal Site

Search engines, directories and service provider homepages are examples of this generic term. Basically, any site which provides an entry point to the internet for a significant number of users can be called a portal site.

Check Boxes or Radio Buttons: Specifically used on forms within websites so users can check a box or click the round circle “radio button” to make selections or indicate a choice.

IE Any Version of Internet Explorer’s Browser that is used to surf the Internet.

Adobe and PDF Adobe, Inc.'s Software that is used as a format to save, distribute and create files or brochures.

Word: Microsoft's Word Processing Program

Load Time: The approximate time it takes to fully view your website after requesting that address.

Statistics: A system whereas a user can view the amount of visitors, hits, and other demographic information about their website including keywords and departments visited.

IT: Your university Information Technology Department

Rich Text Format Email: Basically, this is when you send email as a web page.

Harvest: Slang for obtaining information, email addresses, mailing addresses, or other vital information needed to innovate and improve your efficiencies and success.

Search Engine

A search engine is a searchable index that houses millions of URLs. The term Search Engine is commonly used to describe both directories and search engines. As a server or a collection of servers, search engines are dedicated to indexing and storing internet web pages and providing internet searchers with an ordered list of pages that match a particular query. These indexes are normally generated using indexing spiders. Yahoo is commonly mistaken as a search engine but is actually a directory.

Search Engine Optimization

See Optimization more info on search engine optimization.

Search Engine Promotion

Search Engine Promotion consists of optimizing website pages and creating content rich pages to target specific keyword phrases. It also includes consistent appropriate submitting of pages to the search engines and directories. See also internet advertising.

Spider, Spyder

A spider is a robot program that surfs the web to index keywords and page text and then rank and order web pages according to what it deems most relevant. Web pages are then stored for access by internet queries. See also Robot.

Google: This directory and search engine is become ever more powerful and expanding its market share. Google is unique in that it gives preference to text and content deep into the web page while also recognizing your title and link popularity. Now that Google is the backup search engine for Yahoo and a search engine partner with AOL, Google's market share is very broad. As a note, Google is probably the fastest loading search engine to use.

References:

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Resources - eCommerce and Internet Resources

Should a small business get onto the Web???

Advertising and Marketing on the Internet: The Rules of the Road	[TEXT]	[PDF]
Appliance Labeling Rule Homepage	[TEXT]	-
BBB-Online: Code of Online Business Practices	[TEXT]	-
Big Print. Little Print. What's the Deal? How to Disclose the Details	[TEXT]	[PDF]
Businessperson's Guide to the Mail and Telephone Order Mdse Rule	[TEXT]	[PDF]
Complying with the Telemarketing Sales Rule	[TEXT]	-
Disclosing Energy Efficiency Information: A Guide for Online Sellers of Appliances	[TEXT]	-
Dot Com Disclosures: Information About Online Advertising	-	[PDF]
Electronic Commerce: Selling Internationally. A Guide for Business	-	[PDF]
Frequently Asked Questions About the Children's Online Privacy Protection Rule	[TEXT]	-
How to Comply With The Children's	[TEXT]	[PDF]



Online Privacy Protection Rule

Internet Auctions: A Guide for Buyer and Sellers [TEXT] [PDF]

Selling on the Internet: Prompt Delivery Rules [TEXT] [PDF]

TooLate.Com: The Lowdown on Late Internet Shipments [TEXT] -

Website Woes: Avoiding Web Service Scams [TEXT] [PDF]

What's Dot and What's Not: Domain Name Registration Scams [TEXT] [PDF]

You, Your Privacy Policy & COPPA [TEXT] [PDF]

Glossary of Computer & Internet Terms

A

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AUP (Acceptable Use Policy) Address A binding document signed by all users that explains the rules of Internet use at an institution. All schools with Internet access should create an AUP.

Address Refers to the email address of an individual or group, or the address of a site on the Internet. Site addresses are known as URLs.

Address Book A feature of an email program that lets the user enter email addresses to make it automatically address email messages.

See also: [Email Address](#)

Advanced Search A search of the Internet that uses combinations of a more than one limiter and/or Boolean operator in the search term or query

Alignment How text is placed on a page. Also called justification.

Anchor A destination marker for a link, specifying a specific location on a Web page. Anchors are often used to link to locations within a Web page. Sometimes they are used to identify specific spots on other Web pages. If you have a lot of text on a Web page, use an anchor to help your readers maneuver around the text.

Animated GIF A type of GIF image that can be animated by putting several images together in a single file. When the images are viewed, they cycle through the combined images. This gives the illusion of motion, or animation. Animated GIF format is used by most Web browsers.

Anonymous FTP A way of accessing an FTP server anonymously. Users must sign on as anonymous and enter their email address to connect to an anonymous FTP site.

Application A software program. For example, Microsoft Word is a word-processing application.

Archie No, not the comic book one, but a network service that searches FTP sites for files.

Ask An Expert A site where you can ask a question of an expert in a particular subject by email and get an answer in return.

Attachment A file sent with an email message. An attachment may be a text or picture file or an application. Anything stored on your hard drive can be attached to and sent with an email message.

Authenticate To verify the sender or source of an email, whether sent by computer or a person.

AV Acronym for audio visual. An AV computer is capable to input and/or output of audio (sound) and video (picture) to and from external hardware, such as video cameras, VCRs, computer projection devices, and large screen monitor.

AVI Acronym for Audio Video Interleaved digitized video files, a PC format for movies. AVI movie files are named using the .avi file extension (example: a move of a student's speech might be named "speech.avi").

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Back Button Takes you to the previous Web page within a sequence of Web pages you have visited.

Baud Pronounced "bod". The speed at which data is transferred. For example a 28,800 baud modem can send or receive approximately 28,800 characters (bits) a second.

Bit The unit of measure which represents a single character of data. The smallest unit of storage on a computer.

Bits Per Second (BPS) The speed at which bits are transmitted over a communication medium, such as a modem.

- Kbit kilobit
- Kbyte or K Kilobyte
- Mbit megabit

- Mbyte or MB megabyte
- Gbit gigabit
- Gbyte or GB gigabyte

Blind Carbon Copy (BCC) To send a copy of an email message to someone other than the person to whom the message is originally addressed without letting the addressee know.

Bookmark A way to mark interesting or frequently used spots on the Internet so you can revisit these pages without having to type in the web address.

Boolean Operator A word in all copulate letters, such and AND, OR, and NOT, used to combine search items. For example, if you sear for

- ham AND eggs, you would get documents with contain both word;
- ham OR eggs would look for all documents with ham and all with eggs;
- ham AND eggs NOT seuss would look for documents with both words, but no mention of Dr. Seuss.

Boot To load system software. A computer boots up when you turn it on. You "reboot" the computer when you restart it.

Browse To casually explore the Internet.

See also: [Internet](#), [Online](#), [Web Site](#), [World Wide Web](#), [Browser](#)

Browser Also known as Internet or Web browser. Software that allows users to access and navigate the Internet. Some Internet browsers, such as Netscape Navigator and Microsoft Internet Explorer, are graphical. Lynx is a text-based browser.

See also: [Internet](#), [Web Browser](#)

BTW Abbreviation used in email for "by the way".

Button A button is activated when you place the arrow on it and click the mouse. Back button takes you to the previous Web page within a sequence of Web pages you have visited. Home button on a Web pages, this takes you to the home page of the Web site. In a Web browser application it takes you to a start up home page you have preset. Forward button takes you to the next

Web pages within a sequence of pages you have visited. Stop button halts a Web page from loading.

Byte A byte is a series of eight bits, each one a 0 (meaning "off") or 1 (meaning on). A byte is the unit of memory required to store one ASCII character.

See also: [Bit](#), [Bits Per Second \(BPS\)](#)

C

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Cache A cache is a method of storing frequently accessed information for easy retrieval. The area in your computer's hard drive or RAM (memory) where this information is stored.

Cancel To stop a command.

Carbon Copy (cc) To send a copy of an email message to someone other than the person to whom the message is addressed.

See also: [Blind Carbon Copy \(BCC\)](#)

Chat To send and receive short messages in a chat room.

Chat Group An Internet site that allows users to engage in large group conversation.

Chat Room Same as chat group.

Checking Mail Looking to see if any mail has been received by logging on to the Internet and loading your email software. Your software then accesses your online mailbox and retrieves new messages.

Click To press the mouse button once (such as pointing it to the location you want to open).

Client The user of a network services; also used to describe a computer that relies upon another for some or all of its resources.

Clip Art Drawings created by professional or amateur artists. Clip art images can be used to enhance your text as image links or just as decorations. They must be in GIF or JPG formats for use in Web page publishing.

Coax Plug One type of AV input plug. It is the screw-in plug used to connect an antenna or cable TV line.

Code The language in which programmers write (source code) and which computers read (machine code).

Compose To type out an email message. You can compose a message either online or off line.

Compress This is a compact way to store files containing text, data, or images. Compressed Windows files are known as ZIP files. Compacted Macintosh file are known as SIT, SEA, or HQX files. Special software is necessary to uncompress these files--?Unzip for Windows, and Stuffit Expander for Macintosh.

Controller Control strip at the bottom of movie windows. The speaker on the left regulates the volume. The triangle is the Play/Pause button. The slider indicates which part of the movie is playing. The two button on the right advance or reverse the move one frame at a time.

Cookie Refers to a piece of information sent to a browser that the browser software is expected to save and send back when you re-visit that site. Cookies contain information such as log-in or registration information, online "shopping cart" information, user preferences, etc.

Copy To duplicate.

Copyright Legal ownership of something, such as text in an article and an image on a Web page.

Crash Complete computer system failure. Necessitates a reboot of the system.

Crop To trim unwanted parts of image.

Cursor The arrow or blinking I-beam you direct to different locations on the computer screen by used the mouse.

Cyberspace Term used to mean the virtual space in which people connect and navigate when they use the Internet. Coined by the science fiction author William Gibson in his novel Neuromancer (1984).

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Database A collection of information that is organized and stored so it can be search easily.

Decompress To open a file that has been compressed, returning it to its original size. A compressed file must be decompressed in order to be viewed, printed, or run.

Dedicated Web Presence Provider Company that specializes in storing Web sites for a fee.

Delete To remove permanently. If you don't want to save a message, you may delete it, or put it in the trash to be deleted later.

Dialog Box The box that appears when you open an option from the menu or toolbar. The box gives you choices of commands to give the computer, such as to save a file or open a document.

Digital Information stored as bits?ones and zeros.

Digital Camera A camera that does not use film. Instead, it creates electronic images of pictures that can be copied (downloaded) directly onto your computer.

Digital Photograph A picture taken by a digital camera.

Directories Similar to search engines, directories are indexes of web pages organized by subject.

Disk Cache The area in your computer's hard drive where information you accessed while online is kept.

Domain Name The name of a computer (server) on the Internet which must be registered with a central organization known as the InterNIC. Ensures that only one computer on the Internet is named CNN.com, www.microsoft.com,

etc. The domain name in an address (URL) tells you the official, registered name of each site.

Domain Name Extension A section of an address (URL) that tells you the kind of computer on the Internet with which you want to interact. There are a number of commonly recognized domains. These are:

- .com (commercial businesses)
- .edu (educational institutions)
- .mil (military organizations)
- .net (network organizations)

Double-click To press the mouse button two times.

Drawing Application A computer program used to draw objects which can be selected, deleted, resized, and grouped.

Drop-Down Menu A list of possibilities that appears when you select an option on the menu bar. To choose an item from the list, you drag the cursor down to the item and release.

Download Copying data from another computer to your computer. Some large documents or files will ask you to download to your home computer before viewing.

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Email (Electronic Mail) Electronic mail that can be transmitted through the Internet and read by other computers. You can send pictures and other files as well. The most popular Internet application, since all users have their own unique email address.

Email Address Just as a street address directs a letter to a particular location, an email address directs a message to a particular Internet user. Every user has his own unique email address, such as connect@classroom.com. This email address is read "connect at classroom dot com" (the sign @ means "at" and the period is called "dot").

Emoticons Smileys and other character art used to express feelings in online communication. Some examples: :-) :-0

Enhancement Tools Tools in some software that alter the appearance of images. These tools include things like Crop, Fill, Sharpen, Blue, Brightness, and Contrast.

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FAQS (Frequently Asked Questions) Acronym for Frequently Asked Questions. A list of commonly asked questions and answers on a specific topic.

File A way of storing a piece of information. There are different kinds of file, such as document files and application files, each identified by its own icon.

File Name Web pages are saved with a file name and a file title. The file name is what the computer uses to find a page on the Internet. Example of file names are science.html or re46.html or sch_fact.htm.

File Title Web pages are saved with a file name and a file title. The file title refers to what a Web page is about for example:

- a file with the name science.html might have the title Science Fair Projects.
- The file name sch_fact.htm might have a title Facts About Our School.

Filters Software that allows the user to block certain areas of the Internet.

Firewall Firewalls serve as a protective gateway between an organization's internal network and the Internet.

Flame A nasty piece of e-mail or comment in a newsgroup, usually in response to a newsgroup posting that offended someone.

Flatten The process of converting a movie/video to a form compatible for use on the Web.

Folder A way of organizing a collection of files. A folder may contain just one file, more than one file, another folder, or collection of other folders. Folders are also know as directories.

Font A style of lettering. Most computers contain a dozen or more fonts from which to choose.

Format The code in which an application is written, such as DOS, Macintosh, or Windows.

Frame The boundary that encloses a collection of parts in an open window.

Freeze (Crash) When an application, system software, or both cannot understand the software programming code and stop functioning. They can appear to "freeze" and fail to respond to keyboard or mouse commands.

FTP (File Transfer Protocol) Acronym for File Transfer Protocol. The protocol used to transfer data between computers on the Internet. Allows users to transfer a file from one computer to another. Internet browsers have FTP capabilities built in.

FYI Acronym for the phrase "for your information".

G

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GIF Acronym for Graphics Interchange Format. The most common type of image found on the Internet. Most images found on the Web are stored in .gif format.

Gopher A menu-based system for browsing information stored inside gopher servers on the Internet. The software for Gopher was created and developed in 1991 at the University of Minnesota, whose mascot is the golden gopher. Internet browsers have gopher access capabilities built in. A rarely used portion of the Internet.

Graphic An electronic picture or image.

H

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Hardware The physical part of electronic equipment. Computers, scanners, digital cameras, and printers are all examples of hardware.

Heading A larger size of font that highlights main topics or ideas on a Web page.

Highlight To shade the space occupied by a word or group of words by holding down the mouse and sweeping across them. This may be done to select words to be deleted (or cut), copied and pasted, or to in some way alter the format (such as by underling, italicizing, or using color).

Hit A Web site which is found while conducting a keyword Web search. Also called match. A Web site receives a hit when someone accesses a page within it.

Homepage The first document World Wide Web users see when connecting to a Web server. It often is the home page of the users Internet Service Provider, but can be changed.

Hotlist A list of favorite or important sites. It can help you return to a site faster. It is sometimes called a bookmark file.

HTML (Hypertext Markup Language) The standard language used for creating documents on the World Wide Web.

HTTP (Hypertext Transmission Protocol) The standard language that World Wide Web clients and servers use to communicate.

Hypermedia Hypertext that includes or links to other forms of media.

Hypertext Highlighted text on a Web page that connects you to other locations on the page or to other sites on the Web when clicked.

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Icon An image that represents an application, a document, or a directory. An icon can be clicked on to activate it to send the computer a command. For example, the toolbar shows icon--buttons with pictures on them--that you can click on to activate functions that are described in words on the menu bar.

Image An electronic picture, also called a graphic. There are several formats for images.

- **EPS (Encapsulated PostScript)**
Highest quality image for electronic publishing (not recommended for Web page publishing).
- **GIF (Graphics Interchange Format)**
Most common image format used for Web pages. It is best used for images drawn by hand or created with a computer.
- **JPEG (Joint Photographic Experts Group)**
Image format used for Web pages. It is normally used for digital camera photos and scanned photos. The actual file extension for JPEG files is "JPG".
- **PICT**
Most commonly used image format for publishing. The actual file extension for PICT files is "PCX".
- **TIFF (Tag Image File Format)**
High quality image. Also used in publishing. The actual file extension for TIFF files is "TIF".

See also: [GIF](#), [JPEG](#)

Image Label The text attached to an image. This is what may appear in place of an image if you load a Web page with the images turned off.

Incoming Mail Mail that is being sent to your mailbox.

Infobot (or Mailbot) A server that automatically returns information requested by the user via email.

Internaut Anyone who uses (navigates) the Internet.

Internet The global "network of networks" that connects millions of computers (called hosts). The Internet is the virtual "space" in which users send and receive email, browse databases of information (gopher, World Wide

Web), and send and receive programs (FTP) contained on these computers. Also referred to as the Net, cyberspace, the matrix, or the Information Superhighway.

Internet Account Purchase through an Internet service provider, the account assigns a password, Internet access, and email address to an individual or group.

Internet Directory Listing of sites by categories and sub categories based on site listings selected by the directory's team of editors. Yahoo! Is the most popular Net directory.

Internet Relay Chat (IRC) Interactive, real-time discussions between Internauts using text messages. Users log in to designated Net computers and join discussions in progress. A rarely used part of the Internet, due to the security concerns.

Internet Server A computer that stores data that can be accessed via the Internet. Internet browser software is used to connect to Internet servers. Each server has its own unique domain name and IP address.

Internet Site A computer connected to the Internet containing information that can be accessed using an Internet navigation tool such as ftp, gopher, or a Web browser. An Internet site is stored in a server.

Intranet A private Internet network; restricted to only certain users who can access the information and servers in the network. Many large corporations have Intranets for their employees.

IP An acronym for Internet Protocol. Every computer on the Internet has a unique numerical IP address assigned to it, such as 123.456.78.9. Most IP addresses have domain names associated with them. For instance, the address for classroom.com is also 101.101.101.2.

ISDN (Integrated Services Digital Network) An extension of the published telephone network designed to carry digitized voice calls, or data from on subscriber to another.

ISP (Internet Service Provider) Any entity which provides or sells Internet access to individuals, schools, and businesses. An ISP may also host your school's Web site on its Web server.

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JAVA A language developed by Sun Microsystems that allows World Wide Web pages to contain code that is executed on the browser. Using small Java program called applets, Web pages can include functions such as animation, calculators, and other fancy tricks.

JPEG (Joint Photographic Experts Group) One of the ways a computer stores images. It is used for digital camera photos and scanned photos for Web page publishing. The actual file extension for JPEG files is "JPG".

Justification How text is placed on a page. Also called alignment. Text can be left, center, or right justified.

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Keypal An email pen pal.

Keyword A word or words that describe something or specify search criteria. The keywords basket, hoop, dribble, and freethrow describe the game of basketball. Keywords can be searched for in documents or menus. Internet search tools utilize the keywords you provide to track down links to the information you are looking for online.

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Layout The placement of text and images on a page.

Limiter A symbol, such as + or -, used to include or exclude search items. For example, if you search for ham +eggs, you would look for documents which have both words or just eggs (the + in front of eggs mean eggs must be included); ham eggs-seuss would look for documents with both words, but no mention of Dr. Seuss (the ? in front of seuss means Dr. Seuss can't be included).

Link Text or images embedded on a Web page which make it possible for users to jump from one piece of information to a related document or site by clicking on it. Also known as hyperlinks. Usually blue in color.

Link History A list of Internet sites, services, and resources which have been accessed through your Internet browser to arrive at the current item. Also know as a history list.

Location Field The area at the top of the browser window that shows you the location of the current page. The box where you type in an Internet address (URL) that you wish to connect with.

Logon To sign on to a computer system.

Lurker/Lurking Someone who reads postings on a mailing list or a internet newsgroup but does not participate in the "discussion" by posting messages of his/her own. New users are cautioned to "lurk before they leap" so they can get a feel for a discussion area before contributing.

M

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Mailbox The place from which your email comes and goes.

Mailing List Topic-oriented, email-based message bases that can be read and posted to. Users subscribe to the lists they want to read and receive messages via email. Because many mailing lists are operated using listserve software, many Internauts call mailing lists "listservers". There are two types of lists: moderated and unmoderated. Moderated lists are screened by a human before messages are posted to subscribers. Messages to unmoderated lists are automatically forwarded to subscribers.

Mailing List Moderator A person who looks over the messages sent to a particular mailing list, sometimes choosing not to include inappropriate messages, before sending them out. Some mailing lists are moderated; other are not.

Match A Web site which is found while conducting a keyword Web search. Also called a hit.

Memory Cache Menu The area in your computer's RAM (memory) where information you access while online is kept. A set of commands in an application which activate a variety of functions. A menu is also a set of choices on a Web page or server site.

Menu Bar A selection of command options that can be pulled down by pointing the mouse to a menu option and holding down your mouse button. Many of the menu bar options may also be accessed by clicking the icons on the tool bar.

Message The contents of an email communication, contained in the message body.

Message Body The portion of the open window in which the text of the message appears.

Meta Search Engine A site which allows you to send your keywords to multiple Internet directories and search engines simultaneously. Meta engines speed and simplify searches.

Modem A device that lets your computer communicate with other computers over phone lines. Modem stands for "modulator-demodulator". Most modems operate at 28,800 baud. Both 33,600 and 57,600 baud modems are also available.

MOV Format for QuickTime movies. QuickTime movie files are named using the .movie file extension (example: a movie of a student's speech might be named "speech.mov").

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Navigate To find your way around a Web page or from one page to another. To "surf the Net".

Netiquette The rules of conduct for Internet users. Violating netiquette could result in flaming for removal from a mailing list or Usenet newsgroup. Some service providers will even cancel a user's Internet account, denying access of the Net, if the violation is severe.

Network A group of computers connected to each other so they can share data. The Internet is a collection of thousands of networks which can communicate with one another.

O

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Online You are online when your computer is connected to the Internet. A printer is online when it is connected to a computer and ready to receive information to be printed. When you are using your computer but are not connected to the Internet you are said to be working offline.

Online Encyclopedia A reference guide of articles on a broad range of subject accessible through the Internet.

Online Newspaper A daily or weekly publication containing recent news feature articles, and advertising accessible through the Internet.

Online Periodical A collection of stories, articles, and pictures accessible through the Internet.

Online Service A company that provides access to the Internet. Some services, such as America Online, CompuServe, and The Microsoft Network, provide a wide range of services and information to members. Services include email, chat groups, and Internet access. Information includes news, entertainment, and travel.

Options A menu choice or button which generally activates a dialog box with additional choices.

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Paint Application A computer program that uses

PDF PDF stands for Portable Document Format. PDF files typically contain more formatting (charts, maps, etc.) than is possible in ordinary Web pages. To read PDF files, you need Adobe Acrobat Reader.

Pixel Acronym for PICture Element. The smallest units of a picture on a monitor's screen. The more pixels a screen has, the clearer the resolution.



Plug-In An add-on application for an Internet browser which extends its capabilities. Plug-ins are available which allow you to view video-clips, display virtual reality landscapes, or listen to real-time streaming audio. One of the reasons Netscape and Internet Explorer are such popular browsers is they allow third party vendors to create programs (plug-ins) that run in conjunction with theirs. Plug-ins allow computers to play audio and video.

Pointing Arrow The arrow that you direct to different locations on the computer screen by using the mouse. Also known as a pointer.

Pointing Hand The pointer used to select a link on a Web page.

Post To store or upload a Web site to a Web server.

Posts Email messages sent to a mailing list or Usenet newsgroup to be read by subscribers or others on the Internet.

Protocol A set of rules computers use to communicate over a network. All Internet-connected computers use the TC/IP protocol to communicate with one another.

Publish To make a Web page and make it available on the on the Internet.

R

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RAM RAM Acronym for random-access Memory. Commonly refers to the internal memory of your computer. The more RAM your computer has, the more programs you can run simultaneously.

Ranking Word A search word that affects the order in which the search results are listed. If a word is entered into the ranking field on AltaVista, it bumps matches that include that word to the top of the search results list.

RCA Plug One type of AV input plug. Sometimes called phono plugs, these plugs are found in the back of most stereo systems. Yellow RCA plugs are for video or image input. Red and white RCA plugs are for audio or sound input. See also: [Coax Plug](#)

Refine To narrow the focus of a search by including more search terms, limiters, and/or Boolean operators. In AltaVista, the Refine feature offers menu choices which help you narrow the focus of your search.

Relevance Rating A score given as a percent (87%) which tells you the chances of a particular item from a search results list matching the focus of your search. Relevance ratings are used by many search engines.

Resize To make an image larger or smaller. Once selected, an image can be resized by dragging its handles; however, this does not change the image file size. To change the file size, along with the appearance, an image must be resized in an image editing application.

Return Key A key on a computer keyboard which activates a command or starts a new line of text.

Router A device (hardware) that regulates traffic on the Internet and selects paths for the information to travel.

S

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Scan To read text or images into a computer. To quickly read through information, either online or offline.

Scroll To move through text or images horizontally or vertically on-screen. This allows you to see a large document a little bit at a time.

Scroll Bar A horizontal or vertical strip at the bottom or right side of a window. It lets you scroll text or images up and down or left and right.

Search To look for specific information on the Internet.

Search Engines A search engine is a tool to help people locate information available via the World Wide Web. By typing in key words, users can find numerous websites that contain the information sought.

Search Entry Field The area in which you type in the words, symbols, and operators that make a search term.



Search Term Words that identify the topic about which you are searching for information. The search term sports injuries-baseball will look for files that have the words sports and injuries and not the word baseball. Also known as a query.

Search Tools Web sites that allow you to search the contents on the Internet. There are three distinct types of search tools?Internet directories, search engines, and meta search engines.

Server Any computer connected to the Internet which hosts information that is available to users across the Internet. Web servers are the most numerous servers online, second only to email servers. There are also gopher, FTP, and IRC servers.

Signature File Return address information such as name, phone number, and email address that users put at the bottom of email messages.

Simple Search A search of the Internet that does not use Boolean operators in the search term. Usually done via Internet directories.

Software A computer program or application.

Spamming Unsolicited email containing advertising or promotional messages sent to large numbers of people.

Status Bar The area at the bottom of the browser window that contains text describing a page's location or the progress of a connection to a page. When the cursor is positioned over a link, the status bar shows the URL that will be used to bring the page to the screen. When a Web page is loading, the status bar reports progress in contacting the URL source.

Subscribe To sign up to receive messages from a mailing list, Usenet newsgroup, or online publication. To unsubscribe is to take your name off a list or stop receiving posts from a Usenet newsgroup.

Surf To cruise in search of information on the Internet.

T

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Table Columns and rows of cells. The cells can contain text, images, links, etc.

Table of Contents A list of the main items or topics in a Web site. Items in a table of contents are usually hypertext, they link to other locations within the site for easy navigation. A site's home page usually serves as a table of contents.

Terminal A work station with a keyboard and monitor which accesses its information and applications on a remote computer.

Text The letters, numbers, and characters on a keyboard.

Text File A file with text that has no formatting. None of the text is bold, underlined, italicized, or tabbed.

Tiles Textured patterns or rows of repeated patterns in the background of Web pages.

Title The heading on a Web page. Appears in the title bar at the top of a browser window.

Toolbar A box with icons (pictures) of the tools for performing functions within an application.

U

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Unsubscribe To remove your name from a mailing list or Usenet newsgroup to which you have subscribed.

Upload To transfer a file from your computer to another computer on the Internet.

URL - Uniform Resource Locator A URL is made up of three parts.

[URL:http://www.classroom.com](http://www.classroom.com)

1. URL is placed in front of any Internet address which can be accessed using an Internet browser.
2. This portion represents the access method for the site to be accessed. In this case, http:// means it's a Web address. Other access methods include ftp://, gopher://, etc.

3. The actual Internet address to be accessed. When you come across URL, type it into the location field of your browser window and hit return. Never type the letters URL: but instead, type in everything that follows after the colon.

Usenet Newsgroups More than 29,000 topic-oriented message bases that can be read and posted to. Also called newsgroups.

V

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Video Clip A short moving picture.

Virtual A computer-generated environment.

W

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Web Address Just as a street address is the physical location of a house or building, the Web address is the electronic location of a Web site on the Internet. A web address is one type of URL.

Web Authoring Software Software applications used to create Web pages. The application translates the pages into HTML, the language used for creating Web pages. Web authoring software allows you to create Web pages without knowing HTML.

Web Browser A software application which allows you to view and retrieve information from the Internet. Also known as an Internet browser.

Web Page The single HTML document accessible via the World Wide Web. A Web page can be linked to other pages within a Web site or anywhere on the World Wide Web using links.

Web Server A computer connected to the Internet which makes Web pages available for users to read.

Web Site The physical location of a Web page or set of linked Web pages. Web sites are stored on Web servers around the world, and can hold any number of Web pages--from one to a million.



Web Site Map A visual representation of the pages in a Web site. There are four common Web site maps--linear, branched, interconnected, and combination.

Webmaster The administrator responsible for the management and often design of a World Wide Web site. The person who maintains a Web site.

World Wide Web Also known as or Web or WWW. An Internet navigation system that allows for point-and-click navigation of the Internet at large. The Web is a spider web-like interconnection of millions of Web pages stored on servers around the world. Web pages are hyperlinks to connect each other.

See also: [Internet](#), [Web Browser](#), [Web Page](#), [Browser](#)

WYSIWYG (What You See Is What You Get) The phenomenon of seeing on-screen what you will see on the page when you print your document, or what a Web page you create will look like when viewed through a browser.

http://www.michigan.gov/msp/0,1607,7-123-1589_1711_4579-142199--,00.html

ⁱ http://www.export.gov/sellingonline/eg_main_020761.asp