

# SMAD 341

## Web Communication

### Internet Basics

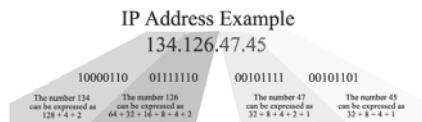
#### IP Addresses

- Every computer is a “node” on the Internet and has a unique IP Address
- Four numbers between 0 and 255
- Example: 134.126.47.45

### Internet Basics

#### IP Addresses

- Each segment is an 8-bit number



- More than 4-billion IP addresses are possible
- $4,294,967,296 = 256 * 256 * 256 * 256$

### Internet Basics

#### IP Addresses

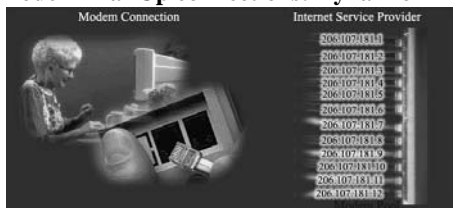
- Blocks of IP addresses are allocated to research, education, government, corporations, and Internet Service Providers
- <http://www.iana.org/assignments/ipv4-address-space>

- Individual IP addresses are in turn allocated to individual computers

### Internet Basics

#### “Dynamically Assigned” IP Addresses

- Modem Dial-Up connections: Dynamic



- ISPs pay for a “block”
- They have fewer IP addresses than customers

### Internet Basics

#### “Static” IP Addresses

- Dedicated connections: Static



- Each computer gets a dedicated IP that doesn’t change from session to session
- One IP address needed for each customer



## Internet Basics Domain Name Servers

- IP addresses must be “mapped” to domain names
- When you type: www.acmewidgets.com....
  - Your computer connects to a “Domain Name Server”
  - The “DNS” server looks up the address to see its IP address and sends it to you
  - Your computer then uses the IP address

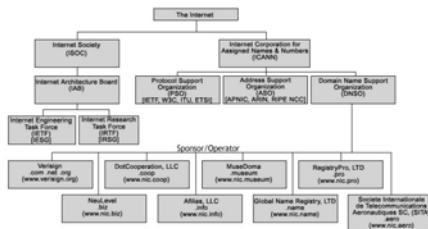
## Internet Basics Domain Name Servers

- IP addresses may change, but domain names won’t have to.
- When you “register” a domain name.....
  - You are creating an entry in the file kept by DNS servers

<http://his.com/cgi-bin/nslookup>  
(enter a domain name)

## Internet Organization

- No central authority for control of content
- Managed “collectively”



## Internet Organization

### Internet Society

- Non-governmental organization, made up of more than 150 organizations and 6,000 individuals, with an international mission to foster global cooperation and coordination on Internet technologies
- It provides leadership in addressing issues that confront the future of the Internet, and is the organization home for the groups responsible for Internet infrastructure standards.

<http://www.isoc.org/>

## Internet Organization

### Internet Corporation for Assigned Names and Numbers (ICANN)

- Manages the domain name system, and the allocation of Internet Protocol numbers.
- Funded through the many registries and registrars that comprise the global domain name and Internet addressing systems
- Vinton Cerf: Chairman of the Board (Recall: He co-invented TCP/IP)

<http://www.icann.org/>

## Internet Organization

### Internet Corporation for Assigned Names and Numbers (ICANN)

- A nonprofit corporation whose 15-person board of directors is accountable to the attorney general of the state of California and under the authority of the U.S. government.
- Established in 1998 by Clinton Administration.
- Until 1998, the Internet was overseen almost exclusively by one man: Jon Postel, a computer science professor at the University of Southern California.
- 1960s: Postel was a Graduate Student
- Among the handful of engineers who built the Internet.
- For the next 30 years, he managed it on behalf of the Department of Defense's Advanced Research Projects Agency.

## Internet Organization

### Internet Corporation for Assigned Names and Numbers (ICANN)

- 2004: International community favors transferring authority over the Internet to the UN
- 2005: Commerce Department statement – The United States will retain its authority over ICANN.
- National Telecommunications and Information Administration (Part of Commerce Dept.) Statement:

[http://www.ntia.doc.gov/ntiahome/domainname/USDNSprinciples\\_06302005.htm](http://www.ntia.doc.gov/ntiahome/domainname/USDNSprinciples_06302005.htm)

## Internet Organization

### ICANN's 3 Supporting Organizations

- **Address Supporting Organization**  
(Manages the IP address space)
- **Protocol Supporting Organization**  
(Manages the assignment of Internet protocol parameters)
- **Domain Name Supporting Organization**  
(Advises the ICANN Board on policy issues relating to the Domain Name System)

## Internet Organization

### Domain Name Supporting Organization

- Administers the **TOP LEVEL DOMAINS (TLDs)**

**EXAMPLES**

- <http://www.beaweb.org> (ORG is TLD)
- <http://www.yahoo.com> (COM is TLD)

## Internet Organization

### Domain Name Supporting Organization

#### Two Types of TLDs

- **Global TLDs (gTLDs)**
  - .com
  - .net
  - .org
  - .edu
  - .mil
- **Country Code TLDs (ccTLDs)**
  - .uk (Great Britain)
  - .fr (France)
  - .tv (Tuvalu)

## Internet Organization

### Domain Name Registration

**Verisign: (formerly Network Solutions)**

- Once registered all the domain names (com net org)
- Still manages the database

## Internet Organization

### Domain Name Registration

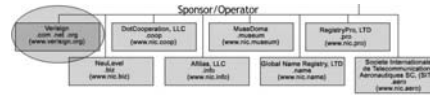
#### 7 NEW Global Top Level Domains

- **.aero** (now operational)
- **.biz** (now operational, but litigation is slowing)
- **.coop** (now operational)
- **.info** (now operational)
- **.museum** (now operational)
- **.name** (now operational)
- **.pro** (under negotiation)

## Internet Organization Domain Name Registration Three Main Types of gTLDs

- **Sponsored domains** (such as .coop)
  - Open only to a defined community represented by the Sponsor.
  - The sponsor does the work of determining eligibility and sets policy for this “narrower” community.
- **Un-sponsored/Restricted domains** (such as .gov & .edu)
  - Can only be used by organizations that meet the eligibility criteria.
  - .gov can only be used by governments, .edu can only be used by educational institutions.
- **Un-sponsored/Unrestricted domains** (such as .com .org net)
  - Most non-commercial organizations use .org, and most commercial businesses use .com, to characterize their operations.

## Internet Organization Domain Name Registration Verisign



### .com, .net, .org TLD

- Un-sponsored/Unrestricted:
  - .com: Considered the MOST valuable
- <http://www.verisign.com>

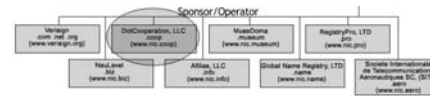
## Internet Organization Domain Name Registration NeuLevel



### .biz TLD

- Un-sponsored/Restricted: Businesses eligible (Un-sponsored here means they don't set policy, just enforce the rules set by ICANN)
  - .com domains are in short supply
  - Not considered as valuable as .com
- <http://www.nic.biz>

## Internet Organization Domain Name Registration DotCooperation, LLC



### .coop TLD

- Sponsored/Restricted: Only for cooperatives
  - For businesses and organizations that operate according to the 7 cooperative principles
- <http://www.nic.coop>

## Internet Organization Domain Name Registration .coop

1. Voluntary and Open Membership
2. Democratic Member Control
3. Members' Economic Participation
4. Autonomy and Independence
5. Education, Training, and Information
6. Cooperation Among Cooperatives
7. Concern for Community

<http://www.nic.coop>

## Internet Organization Domain Name Registration Afilias, LLC



### .info TLD

- Un-sponsored/Unrestricted: Anyone can get this one
- The most successful new domain
- Used by business, individuals and organizations

<http://www.nic.info>

**Internet Organization  
Domain Name Registration  
MuseDoma**



**.museum TLD**

- **Sponsored/Restricted:** Restricted to museums, museum organizations and individual members of the museum profession

<http://www.nic.museum>

**Internet Organization  
Domain Name Registration  
Global Name Registry, LTD**



**.name TLD**

- **Un-sponsored/Restricted:** Restricted to individuals
  - **Can register for 10 year periods**
  - **Attach to web site: i.e.**  
[steve@steveanderson.name](mailto:steve@steveanderson.name) (email for life)
- <http://www.nic.name>

**Internet Organization  
Domain Name Registration  
RegistryPro, LTD**



**.pro TLD**

- **Un-sponsored/Restricted:** Accountants, lawyers, physicians, and other professionals
- **Will allow sub-distinctions: i.e.**  
JamesRClarke.med.pro or JamesRClarke.law.pro

<http://www.nic.pro>

**Internet Organization  
Domain Name Registration  
Societe Internationale de Telecommunications  
Aeronautiques SC, (SITA)**



**.aero TLD**

- **Sponsored/Restricted:** Aviation Community
- **Example:** <http://www.dub.aero/> (Dublin Airport)

<http://www.nic.aero>

**Internet Organization  
Domain Name Registration**

Spring 2005 Update: ICANN Designates Two New Domain Names

**.jobs TLD**

**.travel TLD**

- **Both are Sponsored**

Sept. 2005 Update: ICANN Approves

**.cat TLD**

.cat (promoting the Catalan linguistic and cultural community)

**Internet Organization  
Domain Name Registration**

2005 Update: There are Proposals for Other New Domain Names

Already in Negotiation:

- .mobi (for sites promoting mobile computing)
- .post (providing trusted e-mail)

Others:

- .mail (for "spam-free" e-mail)
- .tel (for VOIP telephony)
- .xxx (for adult-entertainment)
- .asia (serving the Pan-Asia and Asia Pacific communities)

## Internet Organization Domain Name Registration

-ICANN accredits other companies to do registrations

### Accredited Registrars:

Each pays Verisign a fee for maintenance of the database

- Each works with the "sponsoring organization"

<http://www.icann.org/registrars/accredited-list.html>

## Acquiring a Domain Name

• Some registrars (see list below) also offer "Web Hosting."

<http://www.icann.org/registrars/accredited-list.html>

## Acquiring a Domain Name Domain Name Conflicts

### FOUR CATEGORIES OF CONFLICT

#### 1. Infringement: ...on another company's trademark

- Attempt to make money selling goods or services using another's trademark

#### 2. Speculation: ("CyberSquatting")

- Held in reserve hoping the trademark owner will buy it.

#### 3. Character String Conflicts:

- More than one legitimate, non-speculative user

#### 4. Parody:

- Domain names for acts of parody, preemption, or expression

## Acquiring a Domain Name Domain Name Conflicts

### Excellent Source of Information:

<http://www.domainhandbook.com/dd.html>

## Acquiring a Domain Name Domain Name Conflicts

### 1. Infringement: ("Trademark" Infringement)

- A trademark is either a word, phrase, symbol or design which identifies and distinguishes the source of the goods or services of one party from those of others

• Mattel, manufacturer of the popular Barbie dolls, sued Internet Dimensions Inc. in Fort Lauderdale, Fla., for trademark infringement when it discovered a porn site called BARBIESPLAYPEN.COM

• A judge ordered them to stop using the trademark

## Acquiring a Domain Name Domain Name Conflicts

### 2. Speculation: ("CyberSquatting")

(Attempting to "extort" money)

#### • Dennis Toepfen: (Owner of an Illinois ISP)

- Registered: panavision.com (among others)  
- Established a "web site" displaying aerial views of Pana, Illinois  
- When Panavision called asking for the name, Toepfen offered to discontinue its use for \$13,000

• Court ruled he diluted the value of the trademark. Panavision won!

## Acquiring a Domain Name Domain Name Conflicts

### 3. Character String Conflicts

- More than one legitimate, non-speculative user

- Words like prince, united, glad
- The word “glad” is trademarked by more than 200 companies ranging from cosmetics to detergents to electrical apparatus
- Was disputed: “Glad Bag” people won.

Case Example: [utahrealestate.com](http://utahrealestate.com)

## Acquiring a Domain Name Domain Name Conflicts

### 4. Parody

- Domain names for acts of parody, preemption, or expression

?????.stinks AND ??????.sucks

- Registering negative names such as....  
[netscapesucks.com](http://netscapesucks.com)  
[walmartcanadasucks.com](http://walmartcanadasucks.com)
- Are there “FREE SPEECH” issues here?
- Companies buy the “dirty domains”  
- Schwab, WalMart, Vail Resorts, and Volvo Cars have registered offending domains.

## Acquiring a Domain Name Additional Problems

### “Reverse Domain Name Hijacking”

- The act of a bigger, richer, more influential company or individual who threatens you with lawyers and legal fees in a fight over a domain name to which you may have a lawful right.

### “Stealth URLs”

- Addresses intended to trick confused users into visiting their site. i.e. [whitehouse.com](http://whitehouse.com) versus [whitehouse.gov](http://whitehouse.gov)

### “Registering Commonly Misspelled Words”

- Registering domain names based on commonly misspelled words. i.e. <http://www.consumereports.com>

## Acquiring a Domain Name Domain Name “Dispute Resolution”

### THREE OPTIONS

#### 1. Submit a complaint to an “Approved Dispute Resolution Service Provider”

<http://www.icann.org/udrp/approved-providers.htm>

- For “abusive” registrations (i.e. CyberSquatting)  
“Cyber squatting”: registering a domain name in hopes of selling it back to the trademark owner for a profit
- Expedited Process

## Acquiring a Domain Name Domain Name “Dispute Resolution”

### 2. “Court Litigation”

- Hire a Lawyer  
<http://www.domainnamedisputelawyers.com/>

### 3. “Hire a Company to Negotiate”

The VeriSign® Recovery and Acquisition Services team helps you obtain the brand name you want without revealing your identity and without incurring high legal fees. On your behalf, we attempt to identify, negotiate, and acquire restricted domain names in any top-level domain.

## Secure Online Transactions Is E-Commerce Safe?

- Many argue it’s less dangerous than “physical” world.
- People feel comfortable in stores due to “physical cues” (people & things they can see)
- When 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.
- As with many things, it’s perception that is important.
- A business transaction must occur with TRUST.

## Secure Online Transactions The Concerns

- **Spoofing**  
Creating illegitimate sites that appear to be published by established organizations. Use to fraudulently obtain credit card numbers by mimicking legitimate businesses.

- **Phishing**  
Related to spoofing, except scammers will send an email attempting to pull you to their site.

## Secure Online Transactions The Concerns

### Phishing – Example

Dear SouthTrust Bank customer,  
We recently noticed one or more attempts to log in your SouthTrust Bank account from a foreign IP address and we have reasons to believe that your account was hijacked by a third party without your authorization.  
If you recently accessed your account while traveling, the unusual log in attempts may have initiated by you.  
However if you are the rightful holder of the account, click on the link below and submit, as we try to verify your account. (In case your are not enrolled for SouthTrust Bank Online Banking then use your Social Security Number both as Customer ID and Password):

<https://www.southtrust.com>

The log in attempt was made from:  
IP address: 110.6.13.227  
ISP host: 110.6.13.1.fastweb.net.org

If you choose to ignore our request, you leave us no choice but to temporarily suspend your account. We ask that you allow at least 48hrs for the case to be investigated and we strongly recommend not making any changes to your account in that time. If you received this notice and you are not the authorized account holder, please be aware that is in violation of SouthTrust Bank policy to represent oneself as another SouthTrust Bank account owner. Such action may also be in violation of local, national, and/or international law. SouthTrust Bank is committed to assist law enforcement with any inquiries related to attempts to misappropriate personal information with the Internet to commit fraud or theft. Information will be provided at the request of law enforcement agencies to ensure that perpetrators are prosecuted to the fullest extent of the law.

\* Please do not respond to this email as your reply will not be received.

For assistance, log in to your SouthTrust Bank account and choose the "HELP" link.  
Thanks for your patience as we work together to protect your account.  
Regards,

The SouthTrust Bank Corp. Copyright © 2005. All rights reserved.

## Secure Online Transactions The Concerns

- **Unauthorized disclosure**  
Hackers intercepting the transmission of data.

- **Unauthorized action**  
A competitor or disgruntled customer can alter your Web site so that it refuses service to potential clients or malfunctions.

- **Data alteration**  
The content of a transaction can be intercepted and altered en route, either maliciously or accidentally.

## Secure Online Transactions The Concerns

- **Hackers getting into the SERVER and stealing credit card numbers stored there from past transactions**

- **As important as the transaction itself is how a Web site stores your data after you buy**

**THIS MAY BE THE BIGGEST ISSUE**

## Secure Online Transactions Secure Server Transactions

- **Sending information via the Web so that personal information is secure.**

- Credit card numbers
- Financial data
- Medical history

## Secure Online Transactions Secure Server Transactions

- **Acquire a "Digital Certificate"**

aka: Server ID or Digital ID

- **The equivalent of a "business license"**

- **Issued by a "Certificate Authority" (CA)  
(A trusted 3<sup>rd</sup> party)**

- **You fill out paper work:**

- Dun & Bradstreet number or Articles of Incorporation
- Background checks

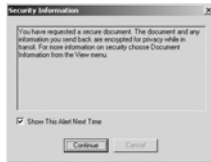
- **CA issues your company a "Server ID" which you install on your company's server**

## Secure Online Transactions Secure Server Transactions

- Provides “Authentication”  
(You are who you say you are)

HTTPS (instead of HTTP)

<https://www.beaweb.org:20299/indiform.html>



- Click on the “closed lock” icon to see the certificate



## Secure Online Transactions Secure Server Transactions

- View Certificate  
This says you are  
who you say you are



## Secure Online Transactions Secure Server Transactions

- Encryption
  - The art & science of secret writing
- Secure Sockets Layer (SSL) Encryption
  - Encrypts all information exchanged between the web server and customers
- 128 bit encryption is used
- $2^{128}$ : The number of combinations
- Has never been broken
- Would take a trillion-trillion years to crack using today's technology.

## Secure Online Transactions Secure Server Transactions

- Uses “Public Key” Encryption
  - Keys exist in pairs (public key/private key)
  - If you want to send an encrypted message to someone, they have to be able to decrypt it.
- Sending encrypted credit card information:
  - The company sends you their public key along with their certificate
  - You encrypt it using their public key
  - They decrypt it with their private key (which only they have)

## Secure Online Transactions Secure Server Transactions

- Message Integrity
  - Encryption also insures that messages from both parties are seen exactly as they were sent, with no alterations.

## Secure Online Transactions Secure Server Transactions

- Secure Electronic Transactions (SET)
- An additional security standard promoted by browser makers and credit card companies.
- Encodes the credit card numbers stored on merchants' servers.

## Paying Online Credit Cards

The most popular way to spend money online

- **Advantages (Consumer's Perspective)**
  - Almost all merchants accept them
  - Give you an itemized list of purchases each month
  - Can spend money you don't have
- **Disadvantages (Consumer's Perspective)**
  - Security Concerns

## Paying Online Credit Cards

- **Advantages (Business Perspective)**
  - Almost all customers have them
- **Disadvantages (Business Perspective)**
  - **Fraud:** Can't verify legitimacy
    - Can't scan card
    - Can't see person
  - Customers can easily deny making the purchase

## Paying Online Alternative Payment Systems

1. Same-as-Cash Stored Value Accounts
2. Self-Recharging Accounts
3. Hardware-Based Stored-Value Accounts
4. Micropayments
5. Billing to a Phone Bill

## Paying Online Alternative Payment Systems

1. Same-as-Cash Stored Value Accounts
  - Customers pay for a "same-as-cash" card in a brick and mortar business
  - Easy to give as "gifts"
  - Good when companies don't accept "out-of-country" credit cards
    - Translates to your currency
  - Good for "anonymous" purchases online
    - **Internet Cash:** <http://www.internetcash.com/>
    - **PocketPass:** <http://www.pocketpass.com/>
    - **CubeCard:** <http://www.cubecard.com/>

## Paying Online Alternative Payment Systems

2. Self-Recharging Accounts
  - Buyer associates either a checking account or a credit card number with the vendor
  - Vendor debits the associated account when the customer purchases from them
  - You send and receive payments via email
  - Payments go directly to your checking account
    - **iPin:** <http://www.ipin.com/>
    - **Achex:** <http://www.achex.com/>
    - **PayPal:** <http://www.paypal.com/> (Owned by EBay)

## Paying Online Alternative Payment Systems (MORE ON PAYPAL)

- The most successful payment system online
- Allows person-to-person payments (relatives, friends etc.)
  - Now has 20-million registered users
  - Nov. 2001: Growing at 28,000 new accounts per day atop a base of 10 million registered users
  - Nov. 2001: Handles \$10 million per day in online payments

Paying Online  
Alternative Payment Systems

**3. Hardware-Based Stored-Value Accounts**

- Not very successful because it requires specialized hardware to work
- Often called a “smart card” (contains a “chip”)
- The new “Digital TV” may use this for transactions
- Other uses:
  - Horse betting
  - Lottery tickets
  - Games (online or via digital TV)
- Mondex: <http://www.mondex.com/>
- Visa SmartCard: [http://usa.visa.com/business/government/smart\\_vis\\_a\\_card.html](http://usa.visa.com/business/government/smart_vis_a_card.html)

Paying Online  
Alternative Payment Systems

**4. Micropayments**

- When you usually transact small amounts (articles & music)
- Often for vendors who sell “premium” content (i.e. when someone pays to access an article and pays per click).
- Companies pay a % of transaction instead of a set amount per transaction
- Millicent: <http://www.millicent.com/>
- QPass: <http://www.qpass.com/>

Paying Online  
Alternative Payment Systems

**5. Billing to a Phone Bill**

- Payments to the company can take a long time
- Protects customer’s privacy
- Eliminates the need to send credit card numbers over the Internet
- eCharge Phone: <http://www.echarge.com/phone/index.html>
- ChargitDIAL: <http://www.chargitdial.com/>

Paying Bills Online  
“Check Free”

<http://www.checkfree.com/>

- Bills can be sent directly to your email
- Send out electronic bills to receive electronic payments

Privacy Policies  
Personal Information Collected

Georgetown University Internet  
Privacy Policy Survey

- 93% of sites collect at least one type of personal information (email, postal address)
- 57% of sites collect at least one type of demographic information (gender, income)

Privacy Policies  
Categories of Information Included in  
Privacy Policies

- Items you ought to include on your company web site
  1. Notice
  2. Choice
  3. Access
  4. Security
  5. Contact Information

**Privacy Policies**  
**Categories of Information Included in Privacy Policies**

**1. Notice**

- What information is collected
- How information is collected
- How information will be used
- Whether information will be reused/disclosed/sold to others
- Cookies: Are they used and how

**Privacy Policies**  
**Categories of Information Included in Privacy Policies**

**2. Choice...**

- regarding being contacted again
- of having their information be disclosed to third parties

**Privacy Policies**  
**Categories of Information Included in Privacy Policies**

**3. Access**

- Allowing consumers to review or ask questions about the information the site has collected
- Whether the site disclosed how inaccuracies in personal information would be handled

**Privacy Policies**  
**Categories of Information Included in Privacy Policies**

**4. Security**

- Information about security of information during transmission and during subsequent storage

**5. Contact Information**

- Information a consumer/user can use to get more information or complain

**Privacy Policies**  
**Sample Privacy Policies**

(This information is usually at the very bottom of a home page)

- **Microsoft**  
<http://www.microsoft.com/info/privacy.htm>
- **Amazon**  
<http://www.amazon.com/exec/obidos/tg/browse/-/468496/0023471044-1459229>
- **General Electric**  
<http://www.ge.com/privacy.htm>
- **Wal-Mart**  
[http://www.walmart.com/cservice/ca\\_securityprivacy.gsp](http://www.walmart.com/cservice/ca_securityprivacy.gsp)  
[http://www.walmart.com/cservice/ca\\_sp\\_privacypolicy.gsp?NavMode=3](http://www.walmart.com/cservice/ca_sp_privacypolicy.gsp?NavMode=3)

**Non-Profit Organizations**  
**Fund-raising**

- **Charity Portals**
  - Web sites with a directory of non-profits
  - Listing is usually free (not always)
  - They may even accept contributions on your behalf
  - They make money either via:
    - Fees they charge the non-profit
    - Advertising on their site
- **Helping.org:** <http://www.Helping.org/>
- **GreaterGood.com:** <http://www.greatergood.com>
- **eGrants.org:** <http://www.eGrants.org/>

## Non-Profit Organizations Fund-raising

- **Donation Button on Home Page**
  - Provide an obvious link to information about donating
- Use a “Donor Relationship Management Service”
  - Costly services
  - Will tailor to your needs
  - Services include:
    - Donation processing, reporting, seminar registration, dues payments
- Entango: <http://www.Entango.com/>
- LocalVoice.com: <http://www.LocalVoice.com/>
- eContributor.com: <http://www.econtributor.com/>

## Non-Profit Organizations Fund-raising

- **Charity Malls**
  - Returns a commission to your organization when your members or supporters make online shopping purchases through their network of online stores
  - Some non-profits are uncomfortable working with a “for-profit” venture
  - Like a school candy bar/fruit sales campaign
- eGive.com: <http://www.igive.com/>
- ShopForChange: <http://www.workingforchange.com/shop>
- SchoolPop.com: <http://www.schoolpop.com/>

## Non-Profit Organizations Fund-raising

- Don't rely on online efforts too greatly
- Fundraising is about “relationship building”
  - Interpersonal contact
  - Email
  - Personal correspondence
  - Brochures
  - Newsletters

## E-Mail – Important Notes Annoying Email Habits

- **Not including your full name anywhere in the email.**
  - Getting emails from people that look like this:  
From: <smurfperson@aol.com>  
The message ends with – Katie
    - Is this Katie Smith, Katie Jones or Katie Larson????
- **Not including the original message in your reply.**
  - Example: Some students were told there was a problem with their original web page for this class. I'd get an email back, saying “I've fixed it.” But, I can't recall without going back to my “sent mail” box to look at the email I sent you to see what I asked you to do.
  - Example: You've sent more than one email to a person, both asking the person to do something. I get an email back saying... “OK, done.”

## E-Mail The Internet's “Killer App.”

- Probably the MOST Useful!
- 1996: More email was sent than postal mail in the United States for the first time.
- Email has become the most pervasive, commonly used Internet technology.

## E-Mail Email Marketing

- Email can be used to:
  - Promote your web site
  - Promote special offers
  - Communicate with your customers
  - Bring in new customers

## E-Mail

- E-Mail is a “Push” Technology
  - It comes to you.
- E-Mail is “Asynchronous”
  - It waits for you.
- Email is “One to Many”
  - It’s easy to communicate with many people at once.
- Email is “Almost Free”
  - Low cost and no additional cost for mailings to many

## E-Mail

### Spam

- Uninvited, commercial email sent to you by someone you don't know.

### UCE: Unsolicited Commercial Email

#### (A Type of Spam)

- A type of bulk email where the recipient has not requested the information
- Sent for commercial gain (sometimes non-profits are included in this)

## E-Mail

### Spam

- Have you ever seen this in an email?

Under Bill s.1618 Title III passed by the 105th U.S. Congress this mail cannot be considered Spam as long as we include contact information and a remove link for removal from our mailing list. To be removed from our mailing list reply with "remove" and include your "original email address/addresses" in the subject heading send to [remove\\_maillist@address.com](mailto:remove_maillist@address.com). Include complete address/addresses and/or domain to be removed. We will immediately update it accordingly. We apologize for the inconvenience if any caused.

## E-Mail

### S.1618 Message is a FICTION!

- There was such a bill in the 105th congress but the language regarding "Spam" was removed before it was passed by the Senate and the bill was never passed by the House of Representatives. It never became law.
- Spam experts warn: **DO NOT RESPOND** to an unsolicited email. Many of them don't have your email address. They may have had a bulk mailing service send you the email and *if you reply with a request to be removed from their list, some of them will have your email address for the first time* and not only will not remove you, but will now include your email address in their own records.

## E-Mail

- Avoid RECEIVING Spam
- Acquire another E-mail account just for spam

### Avoiding Spam

- Disposable E-mail addresses
- Use a new email address every time you are asked
- Forwards to your “real” address

<http://www.mailshell.com>



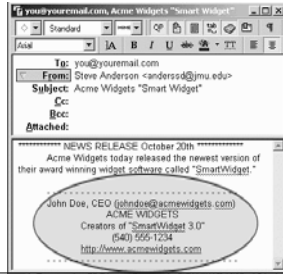
## E-Mail Marketing

- Media E-Mail News Releases
  - Use BCC (blind carbon copy) feature so media don't know who else is receiving the release.



## E-Mail Marketing

- Use a Signature File
- A good way to get free exposure with every email you send.



## E-Mail Marketing

- HTML Email
  - Makes your email look like a web page
  - Can be “push” and “pull” with links

- E-Newsletters  
(Can Have the Same Look as the Company's Web Home Page)



## E-Mail Marketing

- HTML Email



## E-Mail Marketing

HTML Email Example



## E-Mail Marketing



## E-Mail Marketing

1. Customizing Names (from database)
2. Link to the online newsletter
3. Attached as .txt file

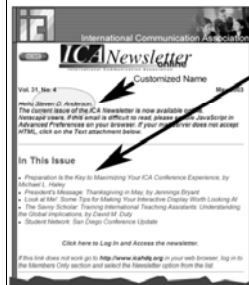


Table of Contents with Links to Online Newsletter



Attached as .txt file too

## E-Mail Marketing

- **HTML Email: The “Pros”**
  - More visually appealing
  - Better response rates/Higher click-through
  - Can be “push” and “pull” with links
  - “Tracking” Capabilities: Can measure “hits” to your web pages

## E-Mail Marketing

- **HTML Email: The “Cons”**
  - Not all email clients can show html email
  - Not all type of html supported (i.e. frames)
  - Some clients don’t show the images (i.e. Mulberry?)
  - Larger file size (longer download)
  - Text formatting can get goofed up in forwarding
  - Some email systems “flag” html emails as potential spam, either deleting them, or moving them to a “suspect” mailbox.  
(The intended recipient has to approve)

## E-Mail Marketing

- **“Bulk” Email**
  - Any group of messages sent via email, with substantially identical content, to a large number of addresses at once.
  - Not necessarily abuse of email, if sent to willing recipients

## E-Mail Marketing

- **“Bulk” Email**
  - **Opt-out:** Include an email address where people can request to be removed. Should be part of any bulk email approach
  - **Opt-in:** People must request to be on the list
  - **Double opt-in:** Everyone who receives your transmission has not only requested to receive your message, but has also responded to our reconfirmation email and requested AGAIN to receive further messages.

## E-Mail Marketing

### Email Guidelines

- **Add people to your mailing list only if they request it (OPT-IN)**
  - Keep a log (with mail “headers” intact) of these requests in case you are asked for proof.
- **Give them options to be removed from your list. (OPT-OUT)**
  - Keep a log of these people forever
- **Keep your lists confidential (PRIVACY POLICY)**

## E-Mail Marketing

- **Acquiring Lists**
  - Email address “harvesting”
  - **Purchasing Lists:** Companies who will sell you an email list on CD-ROM...BEWARE!
- **What will you do with your own list?**
  - Make this part of your “privacy policy”  
(To be covered in the next section)

## E-Mail Marketing

- **Google's Gmail: Users get free email (gigabyte of free storage)**
- **Google scans your email message text for such keywords as "flowers" or "cameras", then displays matching ads alongside the message**
- **More on Gmail**  
<http://www.nytimes.com/2004/05/13/technology/circuits/13stat.html>

The End

**THE END**