

Internet & Intranet



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Key Concepts

- Data—building blocks in the formation of knowledge
- Data integrity—ability to collect, store, & retrieve correct, complete, current data so it will be available to authorized users when needed
- Faulty or incomplete data gives rise to poor quality information & poor decisions

Electronic Communication

- Ability to exchange information through the use of computer equipment & software
 - Fixed network connections
 - Modem
 - Mobile devices such as cell phones, PDAs, & wireless networks

Modem

- Communication device that transmits data over telephone or cable lines or satellite from one computer to another allowing individual users to communicate & share hardware, software, & information, & is otherwise known as connectivity

Online

- Indicates a connection to various computer resources, such as the Internet & World Wide Web, that provide forums to encourage electronic communication

Internet (Net)

- Worldwide network that connects millions of computers
- Started as a government project for researchers to communicate
- No one organization or government “controls” the Internet although some governments censor what their citizens can access

Internet Service Providers (ISPs)

- Companies that provide access for a fee
- Levels of service
 - Dial up (Plain old telephone service, POTS).
 - High speed
 - Digital subscriber line (DSL) over telephone wires
 - Cable or fiber optic
 - Satellite
 - Wireless
- Ex: AOL, MSN, EarthLink, Comcast
- Ex: in Jordan: orange, umniah, sama.

Dial up (Plain old telephone service, POTS).

- Connection through telephone line.
- Original method of connections.
- Require (a modem) is device that transfer computer output to electronic impulses that can be transmitted over telephone lines. The connection speed is dependent on the telephone line noise or interference.

High speed

- Fiber optic cable:-

- Consist of very thin pure glass.
- Light is the mode of data traveling.
- Speed up to 186,000 miles/second.
- More fragile than wire.
- More expensive to install.
- Difficult to splice.

High speed

- Digital subscriber lines connections (DSL):-

- Faster speed than POTS.
- ADSL:- A symmetric digital subscriber lines, provide faster connection than original DSL.
- SDSL:-Symmetric digital subscriber line, more common in Europe.
- DSL:-Uses the regular phone lines with the usage of special modem & splitter

High speed

- TV cable connections:-used the cables that transmit the TV signals.
- Satellite:-uses the satellite field.
- IP Address:- electronically locate the computer on the net, can be static or dynamic, each computer assigned a name &a number.

The world wide web.

- www (w3) is a part of the internet.
- Originate by Tim Berners-lee.
- Huge world wide library.
- Hypertext markup language (HTML) used for file creation

Internet domain

- Assigned suffix to a computer name to indicate the domain in which computer belongs

Table original domain suffixes

Original domain suffixes	
characters	Type of organization
edu	Educational institution
mil	Military computer
gov	Government source
org	Nonprofit organization
com	Commercial enterprise
net	Network, often an ISP provider.

URL consist of:-

- 1) http://
- 2) www
- 3) Name of the computer that host the document.
- 4) // or dot (.)
- 5) Suffix.
- 6) Slash/
- 7) Folder or folders that stored the document on the host computer.

e.g.:-

http://www.just.edu/elearning/...HTML

Computer name- domain- folder- file name.



Home page:-

- The page that opens when the browser first opened.
- Active server page.
- Favorites (book marks).

Intranet

- Private network that uses HTML formatted documents & the TCP/IP.
- The content of the intranet will be protected if there is a concomitant internet connections

Extranet

- It is an extension to the internet with security applications.
- Like accessing your mail from outside through the internet.

Mark up languages.

- Computer files that combine data & extra information that provides more information about the data.
 - HTML:- hypertext markup language.
 - XML:- Extensible markup language.

HTML.

- Developed by Tim Berners-Lee.
- It is a language that define how will a text or image will be displayed by adding certain tag's.
- The internet browser then displayed the data according to the HTML tags.
- The tags are present in pairs.
 - (Head)
 - (/Head)

XML.

- System of tags that designed to define the meaning of the data.

Web cookies:-

- Web cookies are collection of the data that sent to your computer by same web sites.
 1. Session cookies:- expire when user leave the visited site.
 2. Persistent:- exist for a given time.
- Cookies can be used by advertisers to target you.

Computer Malware.

- Any forms of computer software that designed to damage or disrupt the computer system.

Types/ forms of computer Malware.

1. Phishing & pharming:-
 - Are forms of web scans.
 - Both tried to get an individual to reveal personal information.
 - Phishing:- you receive a mail that you are the lottery winner.
 - Pharming:- the domain name server will be infiltrated by the hunter .once the URL entered , it will be redirected to the evil site.

Continue...

2. viruses:-

- Small software programs that designed to execute & replicate themselves without your knowledge.
- Cause varying degree of harm.

Continue...

1. E mail virus:-

- Attached to e mail.
- The e mail attachment are usually scanned for viruses before it downloaded.

2. Worm:-

- It considered a subclass of virus because its replicate itself.
- It does not need a human to run a program to become active instead it uses security holes & computer network to replicate itself.

Adware & Spyware.

- Adware:- soft ware that is often a legitimate revenue source for companies that offer soft ware, in other words this soft ware uses advertisement that displayed when using the free installed soft ware as a source of income & revenue of the company.

Adware & Spyware.

- Spyware:- unlike adware, these soft ware are considered malicious, they track & monitor key strokes & sending them to third party.

How to protect your computer.

- Defending mechanisms:-
 1. Anti virus soft ware.
 2. Fire walls.

Continue...

- There are 15 tips listed as guidance to prevent spam, viruses & spyware to infect your computers, these tips were presented by Argaez, the webmaster of the Internet Web Stats:-
- Be careful with the spam you receive:
 1. Do not buy anything promoted in a spam message
 2. Don't reply to spam or click on its "unsubscribe" link. That simply informs the sender that your e-mail address is valid.

3. Use one e-mail address for family & friends, another for everyone else.
4. If you get lots of spam, check your Internet service provider's filtering features & compare them with those of competitors.
5. Don't post your e-mail address in its normal form on a publicly accessible Web page.

B – Be aware of viruses & hackers

- 7 - Don't open an e-mail attachment unless you were expecting it
- 8 - Use anti-virus software & heed security alerts e-mailed directly from anti-virus vendors to download antidotes for newly circulating viruses & worms.
- 9 - Install a firewall with both incoming & outgoing protection.

10 - Regularly update your operating system, Web browser & other major software.

11 - Use passwords that are at least eight characters long that include at least one numeral & one symbol. Never disclose a password online.

12 - When you aren't using the computer, shut off the modem or the computer itself.

C – Be ware of New Software Downloads

14 - Download & install software only from trusted sources.

15 - clicking on "Agree" or "OK." Read any privacy statements. If they are difficult to find or include questionable practices, abort the installation by closing the window in which it's occurring.

E-mail

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↓
Login name (user name) ; Company ; Domain

- E-mail signature:- the professional e-mail should be ended with a signature that include the sender name, title, company name & geographical location, avoid more personal information such as street address & phone number.

- .

E-mail privacy.

- Debate issues between the institution & the employees,...etc.
- There is a growing trend to monitor e mail from institution.

E-mail Etiquette.

- It is essential for professional communication.
 1. Use appropriate font, case, & spell.
 2. Avoid to write every thing in uppercase letters, (uppercase implies shouting).
 3. Organize your letter into a paragraph.
 4. Be precise, pin to the letter point, clear & concise.
 5. Be very careful when quoting.

6. Avoid step-laddering (quotes a quotation that was quoted from another quotation).
7. Read your writing before sending it.
8. Try to avoid acronyms & emoticons.

Internet Services & Resources

- E-mail
- Instant messaging (IM)
- File transfer
- Database searches
- Remote log-on
- Discussion & news groups

E-mail (Electronic Mail)

- Use of computers to transmit text messages to one or more persons with almost instant delivery
- May transport other file types (attachment files)
- Can be sent anywhere in the world as long as the person has an e-mail address

E-mail Address

- Based on user name & “domain name” (organization or company that provides the individual with an account)
- maali097@nur.just.edu.jo
 - First letter of the first , second name, & Family name & the year
 - “edu” is a domain name indicating an educational facility

Instant Messaging (IM)

- Interactive, real-time, text discussion that may occur via computers, cell phones, or other mobile devices
- Relies on many abbreviations for expeditious communication
- Popular among adolescents & young adults
- Sometimes used in work settings

File Transfer

- A means to move files from one location to another over a network that is separate from e-mail
- Useful for files that exceed allowable size limits imposed by e-mail providers

Database Searches

- Allows users access to databases, such as literature databases, through libraries or other organizations or via private subscription
- Searches can be done in a fraction of the time required to manually search through paper resources

Remote Log-on

- Allows users to access computer facilities from a separate location
- May be used to view files at work or access remote databases at libraries
- Require users to establish an account that permits access

Discussion & News Groups

- Similar in content & diversity
- Differ in method of access
- Discussion (Listserv or Mailing) Groups
 - Individuals subscribe
 - Mass e-mails are sent to all subscribers
- News (Usenet) Groups
 - Users “read” & contribute to discussion selectively; no mass e-mails

E-mail Concerns

- Overwhelming volume
- Improper use—no etiquette (netiquette)
 - Forwards, inappropriate or lengthy messages
- Potential to carry viruses, worms, spyware
- Commercial uses
 - Spam—unsolicited sales messages
 - Phishing—dubious requests for private information

In Jordan.

- According to the internet world states in 2009.
- Jordan internet penetration rate was 25.9%, however, this results is approximately ranked in the mid in all world countries.
- Internet penetration rate:-”number of internet users over the total populations in percentage.

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- Jordan was ranked as sixth in the IPR within the Arab world & the lowest ranked was Iraq (1%), (2009, internet world states).
- The number of internet users in 2008 was 1,126,700 (18.2%) , which is around 9 times more than the number of internet users in year 2000(2.4%).

According to the published report of information technology analytical screening by, department of statistics in Jordan, 2008:

1. Around 22 % from the families , had at least one or more individual who used the internet from home or other places
2. 21.6 % of individuals were used the internet.
3. From the 21.6%, around 59 % were males & 41 % were females.
4. 35% : the internet usage were at least once a daily.
5. 34% : the internet usage were at least once a week

- ADSL was the most common mode of internet connection among modern cities with a round 51%, instead 29% were in rural
- Barriers to use internet:
 - 1- Cost : 38.9%
 - 2- Lack of knowledge regarding how to use internet: 23.4%

-Characteristics of the internet users :

- Age between 15-24
- Bachelors degree & above
- 64 % of the sample used internet to seek information

Significance of Electronic Communication

- ↑ Access to information
- Resources for healthcare consumers & professionals
- More rapid dissemination—consumers may hear of new findings before professionals
- Anyone can post material—not all material is of equal quality

Utility in Healthcare

- Education
- Marketing
- Access to “benchmarking” information
- New means to provide healthcare services (e-health)

Internet-related Concerns

- Quality of information
- Too much traffic leading to “collapse”
- Security—others may access sensitive information, physical restrictions, & policies can help maintain security
- Malware—malicious computer programs that steal information (viruses, worms, Trojan horses, spyware)

Evolution of Online Information

- Credentials of the source?
- Able to validate information?
- Accurate?
- Comprehensive?
- Current (date of issue/revision)?
- Bias or sponsorship?
- Ease of navigation?
- Current links?
- Intended purpose?
- Intended audience?
- Disclaimer statement?
- Site accreditation?
- Privacy policies stated?

The Future

- The Internet & World Wide Web have changed the way the world communicates & does business
- The electronic world will continue to evolve & new services will be available becoming more accessible & easier to use for all persons