

Instructional Technology

Chapter (2) Lecture
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What is Communication?

Describe Communication Process Pg 65

Two or More PCs transfer:

Raw Data, Instructions, Information

Instantly & Accurately

Communication & Devices Pg 64-65

Communication Networks

Networks Share: Data, Info, HW, SW PC

Analog & Digital: Signals / Modems / Cards

Modems (Int/Ext): Phone, DSL, Cable (BB)

Twisted Pairs or Coaxial Cable

Examples: Pg 67 Fig 2-3a & Fig 2-3b

Types of Networks

Local Area Networks * LAN

Wide Area Networks * WAN

Home Network: PCs & Laptops & PDAs

Wired vs Wireless Networks

Intranet & Internet Networks

Defn
Exp

Benefits Ed Networks

School Networks: Share many Resources

HW/SW, Intranet, Internet

Collaboration among Students & Teachers

Collaboration within Intranet & Internet

Examples of Ed Networks: Pg 70 & 71

What is Internet?

Internet: Collection of Networks (Who?)

International, Regional, Local, Home

Many Public/Private Networks: Pg 74&75

Wealth, Conduct, Access, Shop, Meet,

FTP (U&D), Learn, Entertainment, etc...

History of Internet

Relatively Short **but** Prolific growth

ARPA & NSF: Technology Timeline

Pg 76 Fig 2-13 Start? & Users? **Then/Now**

Truly a Collaborative Entity

Internet/Internet 2 is latest High Speed

How Internet works?

Packets & Routers: TCP/IP Pg 77 Fig 2-14

Regional or National: ISP & OSP & WISP

→ Path to access Internet: Pg 81 •

- Pg 82 Internet or **Numeric Address**
- Pg 82 Domain **Name** or **Word Address**

World Wide Web

WWW is **popular part** of Internet (**Who?**)

Collection of Web Pages

Web Pgs: **Reg-Txt**, **Hyper-Txt**, **BG**, **Images**

Pg 82 Fig 2-18a & 2-18b

(**URL**) <http://www.itws.org/ed07/tofc.html>

How WWW works?

Web pages have URLs (Web Addresses)

* Types of Links: Target, Relative, Absolute
Browser accesses Web Pages (Defn & Exps)

Three Types of Search Tools •

WWW provides Digital & Multi-Media

Browser Plugins

- Acrobat Reader (PDF) **Pg 88 Fig 2-26**
- Flash Player (Animations)
- Quick Time (Movies)
- Real One Player (Music)
- Shockwave Player (Multimedia)
- Windows Media Player (Multimedia)

Media Formats

Critical Reason for Plugins **Pg 88 Fig 2-27**

- Common Images: BMP, GIF, JPEG
- Common Audio: WAV, MIDI, MP3 ←
- Common Video: AVI, MOV, MPEG
- Virtual Reality: Real World Simulations

Internet Services (WWW)

- E-Mail Messages & Attachments (@)
- FTP * Downloads & Uploads
- NewsGroups, Message Boards, Blogs
- Mailing Lists: Subscribe / Unsubscribe
- Chat Rooms & Instant Messaging (RT)
- Social Networks & Telephony

Impact of WWW

Johannes Gutenberg: Printing Press Pages
WWW provides Web Pages for the World
Instant & Reliable access for One & All
Teaching & Learning over entire World
Collaborative Commerce over entire World
Communication & News & Entertainment

PP Handout
Conclusion
