CHAPTER 5

Network Applications, Web 2.0, Distance Learning, and Telecommuting

Chapter Outline

5.1 Network Applications

5.2 Web 2.0

5.3 E-Learning and Distance Learning

5.4 Telecommuting

Learning Objectives

- Describe the four major network applications.
- Discuss the various techniques, applications, and web sites that fall under the umbrella of Web 2.0.
- Differentiate between e-learning and distance learning.
- Understand the advantages and disadvantages of telecommuting for both employers and employees.

Chapter Opening Case

Hannaford Bros. HQ

communications??

communications??

comm??

Advertising meats

Checking out

5.1 Network Applications

- Discovery
- Communications
- Collaboration
- Web services

Discovery

Discovery allows users to browse and search data sources, in all topic areas, on the Web.

- Search engines
- Metasearch engines
- Discovery of material in foreign languages

Four Largest Search Engines

Google

Yahoo

Microsoft Network

Ask

Other Interesting Search Engines

FilesTube

- Search and download files from file sharing and upload sites

GoSasa

- Metasearch engine that finds free online classified ads of all kinds

Interesting Search Engines (continued)

Burrp

- Urban lifestyle guide will help you find a Thai restaurant in New York or a night spot in Mumbai

WeShow

- Human-powered search engine for finding online video

Interesting Search Engines (continued)

SearchCrystal

   Allows you to visualize search results

Gnosh

   Metasearch tool that lets you search large media
   sites as well as social search engines

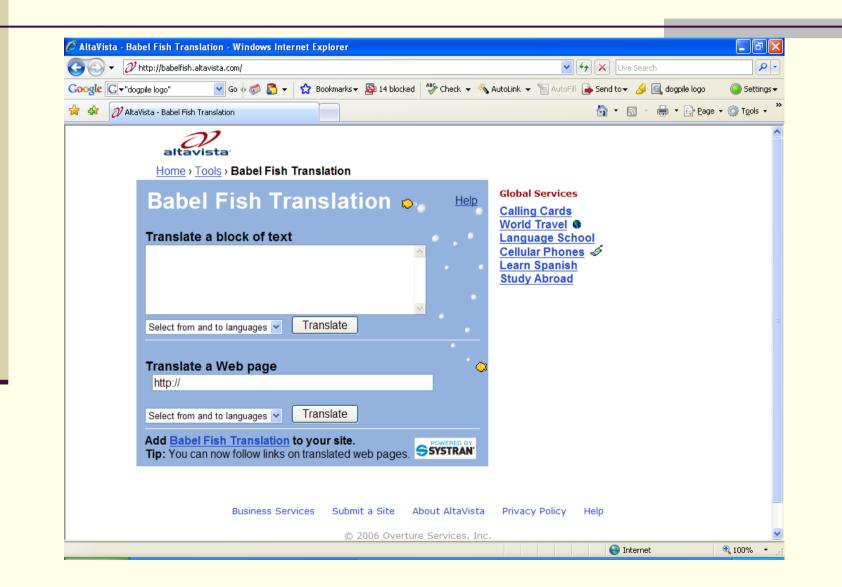# Metasearch Engines

Surf-Wax

Metacrawler

Mamma

Metasearch Engines (continued)

KartOO

Dogpile

Publication of Material in Foreign Languages

Translation products include:

- Altavista

- Google

- Trados

Altavista Translator

Google Language Tools

Discovery (continued)

- Portals
- Commercial (public) portals
- Affinity portals
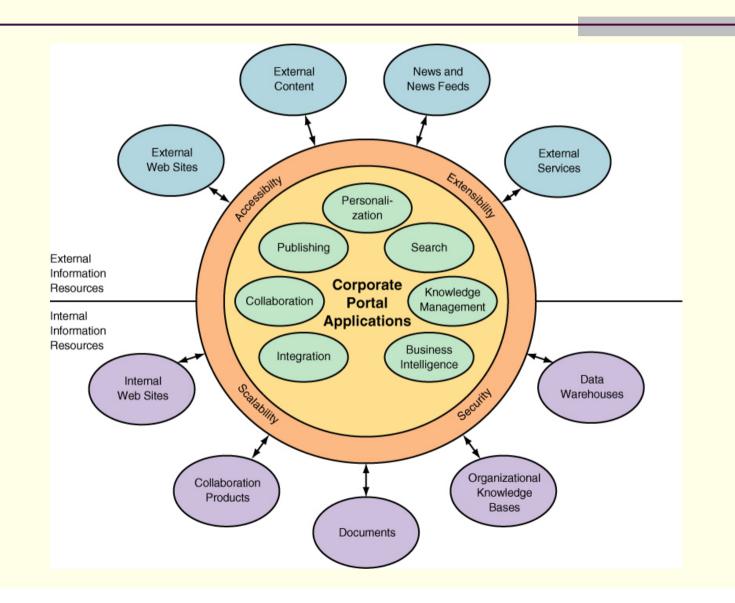- Mobile portals
- Corporate portals
- Industrywide portals
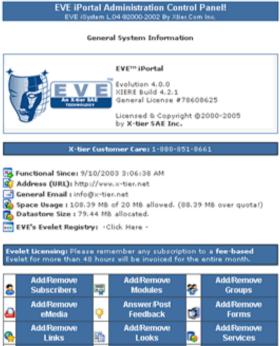
Commercial Portal (example)

Affinity Portal (example)

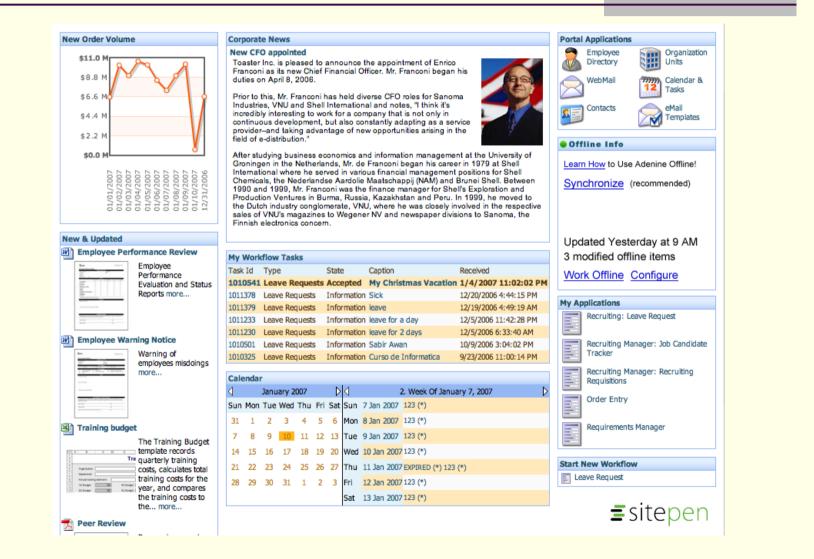# A Corporate Portal Framework

Corporate Portal (example)

Corporate Portal (example)

Industrywide Portal (example)

Communication

- Electronic mail (e-mail)
- Web-based call centers (customer call center)
- Electronic chat room

Electronic Mail

Call Centers

Call Center in the United States

Call Center in India

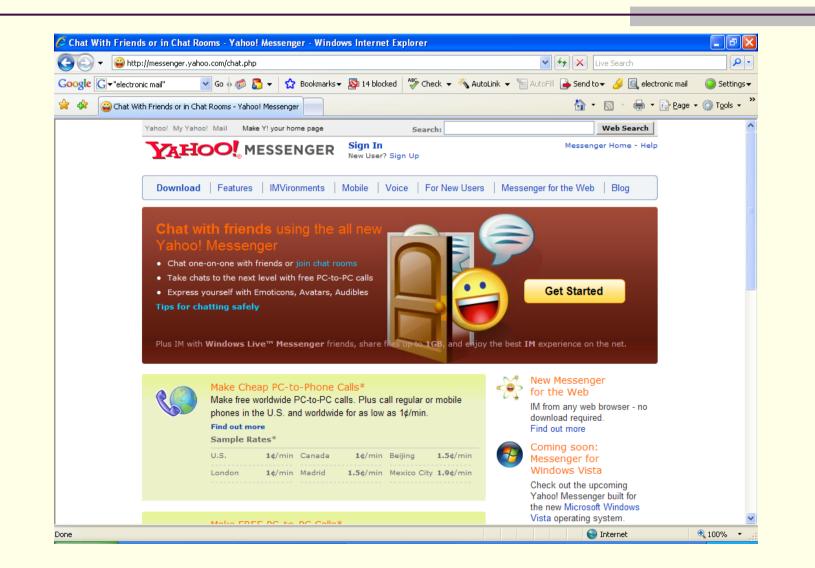# Electronic Chat Room

Voice Communication

Two examples of Internet telephony (VoIP)

Skype

Vonage

Collaboration

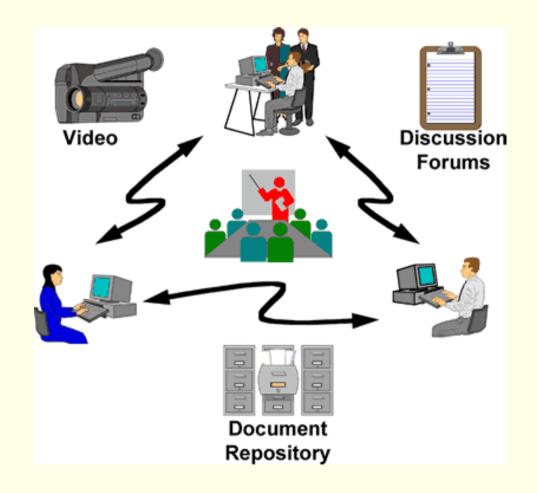**Collaboration** refers to efforts of two or more entities (individuals, teams, groups or organizations) who work together to accomplish certain tasks.

- Work group
- Virtual group (team)

Collaboration (continued)

- Virtual collaboration
- Workflow technologies
- Groupware
- Teleconferencing
- Videoconference
- Web conferencing
- Real-time collaboration tools

Workflow and Groupware Technologies

Telepresence Systems

Leading Telepresence Systems

Cisco Telepresence 3000

CISCO SYSTEMS ®

Leading Telepresence Systems (continued)

Hewlett-Packard Halo System

Leading Telepresence Systems (continued)
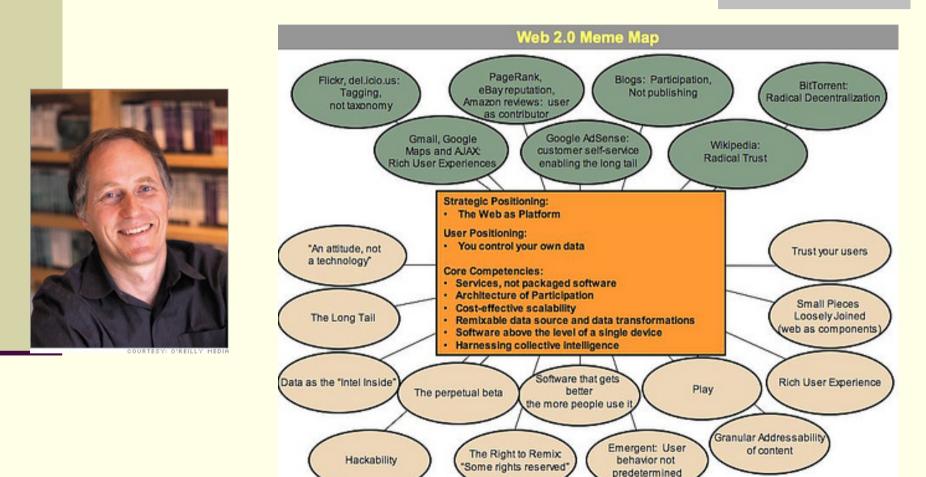
Polycom HDX 9000

Whiteboards

5.2 Web 2.0

Web 2.0 is a loose collection of information technologies and applications, and the Web sites that use them.

Most Common Web 2.0 Memes
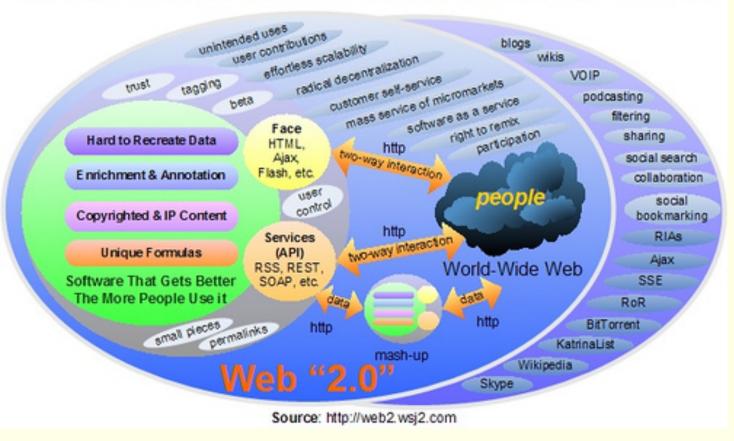
Tim O'Reilly's Web 2.0 Meme Map

COURTESY: O'REILLY MEDIA

Web 2.0 (continued)

Elements of the Web's Next Generation

Source: http://web2.wsj2.com

Web 2.0 (continued)

A look at some
of the many
Web 2.0 sites

Web 2.0 Information Technologies and Applications

AJAX

Tagging

Blogs and blogging

A list of most "linked-to" blogs

Example of Tagging

Web 2.0 Information Technologies and Applications (continued)

Wikis

Wikis used in business

Really Simple Syndication (RSS)

Podcasts and Videocasts

Categories of Web 2.0 Sites

Social Networking Sites

Aggregators

Mashups

Social Networking Sites

facebook

myspace.com

Linked in

KIVA.ORG
loans that change lives

TagWorld

last.fm
the social music revolution

twitter

More Social Networking Sites

Check out this BusinessWeek slideshow

Radar Networks has developed Twine, which
claims to be the first Web 3.0 social
networking site

Aggregators

Mashup (Skibonk)

Mashup (HealthMap)

Mashup (ChicagoCrime)

More Mashups

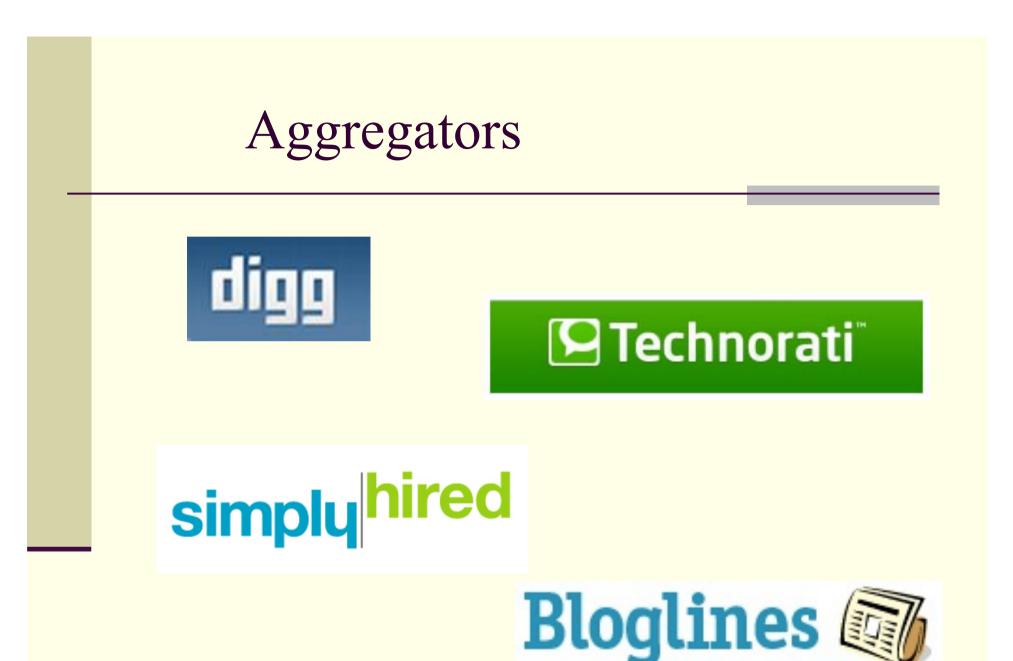Check out this *BusinessWeek* slideshow

Web Services and Service-Oriented Architecture

- **Web services** are applications delivered over the Internet that users can select and combine through almost any device, from personal computer to cell phones.

- A **service-oriented architecture** is an IT architecture that makes it possible to construct business applications using web services.

Four Protocols of Web Services

- Extensible Markup Language (XML)
- Simple Object Access Protocol (SOAP)
- Web Services Description Language (WSDL)
- Universal Description, Discovery, and Integration (UDDI)

Web Services Architecture

Web Services
Directory

UDDI

UDDI
WSDL

Web Services
Client

HTTP/XML/SOAP

Web Services
Provider

Widgets

Time widget →

Weather widget →

Date widget →

E-Learning and Distance Learning

E-Learning

Distance learning

Benefits of E-Learning

- Self-paced learning increases content retention.
- Online materials deliver high-quality, current content.
- Students have the flexibility of learning from any place at any time at their own pace.
- Learning time generally is shorter, and more people can be trained due to faster training time.
- Training costs can be reduced.

Drawbacks of E-Learning

- Instructors may need training to be able to teach electronically.
- The purchase of additional multimedia equipment may be necessary.
- Students must be computer literate and may miss the face-to-face interaction with instructors.
- There are issues with assessing students' work, as instructors really do not know who completed assignments.

Virtual Universities (example)

Now's the time to get your degree with University of Phoenix Online

5.4 Telecommuting

Telecommuting allows workers to work anytime and anyplace.

Telecommuting Benefits

- **For Employees**
  - Reduced stress, improved family life
  - Employment opportunities for single parents and persons with disabilities
- **For Employers**
  - Increased productivity
  - Ability to retain skilled employees

Telecommuting Disadvantages

- **For Employees**
  - Feelings of isolation
  - No workplace visibility
  - Potential for slower promotions
- **For Employers**
  - Difficulties in supervising work
  - Potential information security problems
  - Additional training costs

Do you want to telecommute?

Chapter Closing Case

First Vermont Bank, a part of the TD Banknorth family