

Drexel University

Office of Information
Resources and Technology
presents:

INSTITUTE

on **INNOVATION**

in **TRAINING and TEACHING**



Free and Open Source Software for Communication and Collaboration

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Objectives

- What is Open Source
- Advantages/Disadvantages
- Notable Examples
- E-mail Systems and Clients
- Synchronous Communications
- Asynchronous Communications
- Desktop Sharing

Pre-Knowledge

- Did you attend yesterday's session on Free and Open Source Software for Teaching and Learning?

Pre-Knowledge

- Do you know what open source software is?

Pre-Knowledge

- Do you knowingly use any open source software?

Pre-Knowledge

- Do you like free stuff?

What is Open Source Software?

- Proprietary Software
 - Licensed
 - Company Developed
 - No Source Code
- Open Source Software
 - Licensed
 - Source Code Available
 - No software cost

What is Open Source Software?

- Free software is a matter of liberty, not price
 - Free as in speech, not as in beer
- Four kinds of Freedom
 - Run
 - Study
 - Redistribute
 - Improve

What is Open Source Software?

- Open Source vs Free Software
- Copyleft
- Commercial
- Cost

Myths

- Support?
- Sellable?
 - Investment isn't company backed
- Secure?
 - **“Given enough eyeballs, all bugs are shallow”**

Advantages & Disadvantages

- Proprietary
 - Backed by a company
 - Strongly funded
 - Single development team
- Open Source
 - Distributed development team
 - Volunteers?
 - Community Supported
 - Security
 - Cost
 - More choices
 - Too many choices?

Worth Mentioning?

- This entire course is being taught exclusively with Open Source Software
 - Linux
 - OpenOffice Impress
 - Every tool demonstrated

Notable Examples



- Linux
 - Open Source OS
 - All of the source code can be viewed, modified, and redistributed
 - Predominately used on servers
 - But also desktops, embedded devices, and phones
 - Becoming popular because of distributions like Ubuntu and on netbook platforms

Notable Examples



- Firefox
 - Open Source Web Browser
 - Descended from Mozilla Application Suite
 - Which in turn was based on Netscape Communicator
 - August 2009: ~23% usage share
 - Wide selection of add-ons

Notable Examples

- Apache
 - Web server
 - March 2009: 46% of all websites
 - 66% of the million busiest sites
 - LAMP
 - Stack of Open Source software to run servers
 - Linux
 - Apache
 - MySQL (Database)

Notable Examples

- MediaWiki
 - Open Source Web-based Wiki Software
 - Written in PHP
 - MySQL or PostgreSQL Database
 - Originally developed for Wikipedia

E-mail Systems

- E-mail Clients
 - Used to access e-mail accounts
 - Standard protocols: POP3, IMAP, SMTP, MAPI, and “secure” variants
- E-mail Servers
 - Contain & manage e-mail accounts
 - May provide web-based access

E-mail System Types

- Internet Mail
 - Clients and servers communicate using standard protocols
 - Typically e-mail only; no collaborative aspects
- Groupware
 - Clients and servers use a mix of protocols for different information
 - Typically allows for server-based collaboration (scheduling, etc.)

E-mail Servers

- Open Source:
 - Sendmail
 - Postfix
- Commercial:
 - iPlanet Messenger (Sun)
 - Exchange (Microsoft)
 - Domino (Lotus)

Groupware Servers

- Exchange (Microsoft)
- Groupwise (Novell)
- eGroupware (open source)

E-mail Clients

- Thunderbird
 - Based on Mozilla e-mail client
 - Complies with e-mail standards
 - Lacks calendar
 - Get Lightning plugin
- Outlook
 - Integrates with MS Office
 - Includes calendar functionality

E-mail Clients

- Demo of Thunderbird

E-mail Clients

- Cost comparison:
 - Outlook 2007: ~\$100
 - Thunderbird/Lightning: \$0

Groupware Clients

- Open Source:
 - Evolution; integrates with Novell Groupwise and *some* Exchange servers
- Commercial:
 - Outlook; integrates with MS Exchange
 - Lotus Notes; integrates with Domino

Synchronous Communications (IM)

- Pidgin
(<http://www.pidgin.im/>)
 - Multi-protocol IM client
 - Compatible with:
 - AOL Instant Messenger (AIM)
 - Yahoo Messenger
 - Microsoft Messenger
 - Available for Windows, Linux, and Unix-based OSes
 - Adium (<http://adium.im/>) is Mac OS X equivalent

Synchronous Communications (IM)

- If most IM clients are free, why use Pidgin or Adium?
 - Platform/system-independence
 - Support one client instead of 10
 - Security
 - Most IM clients pass traffic in clear text
 - Pidgin/Adium can be configured to securely encrypt messages between compatible clients

Asynchronous Communications

- Message Boards
- Similar to Threaded Discussions in Blackboard or Bb Vista
- Possible Uses:
 - Team communications
 - Issue tracking
 - Knowledgebase building
 - Customer/client user groups

Asynchronous Communications

- phpBB is the most widely used open source bulletin board system in the world
- Included in many web hosting packages
- Demo
 - <http://www.echo-base.org/forum>:

Desktop Sharing

- VNC/RDC
- Compatible with Windows Remote Desktop, Terminal Server, and OS X (Leopard) Screen Sharing
- Can be used for:
 - Remote diagnostics & support
 - Centralized computing

Desktop Sharing

- Use case:
 - Replace Windows with Linux at the user desktop
 - Deploy Terminal Server for Windows-only applications
 - Users connect to terminal server only when needed
 - Single point of administration
 - But, single point of failure

Desktop Sharing

- Demo:
 - Connection to Windows XP desktop
 - Connection to Ubuntu desktop

Objectives Revisited

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Wrap Up

- Closing Thoughts
- Q&A

Thank You!

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