

# Open-Source Software on the Desktop

By Jessamyn West

Libraries have been paying for software, upgrades, and support since the first PCs arrived in our reading rooms. And libraries have made do with tight budgets since the first book was lent.

The growth of quality open-source desktop applications offers an especially valuable opportunity for libraries to improve service while spending less on software and support. This chapter will look at some of the most popular and easy-to-use open-source software applications and discuss how they can be used in a library context, either by patrons or by library staff.

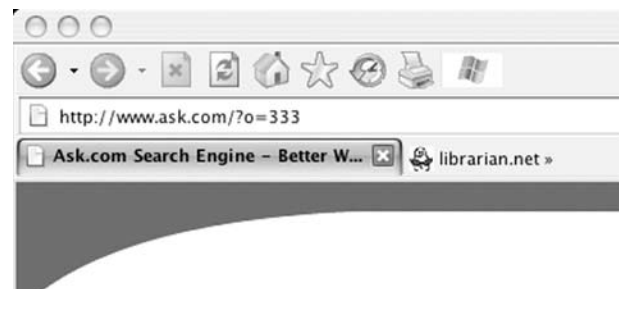
Please note that this is not a discussion of merely “free as in beer” software. Many Web browsers are now available at no cost, and shareware tools for a variety of applications are easy to obtain. The focus here will be only on those tools that are free to use, examine, copy, and modify. While you may not want to take advantage of the examination and modification options of open-source software, their availability is part of what makes these tools useful for libraries and librarians. There are many open-source applications that do a wide range of things. The ones assembled here are generally easy to use or the best in their particular class for doing a certain task. Please see the resource list at the end of the chapter for more OSS options and in-depth evaluations.

Also note that I personally installed every one of these products on both a Mac running the latest version of OSX and a PC running Windows 2000 Server at the beginning of 2007. The OSS environment changes rapidly and sometimes unexpectedly; while I expect installation and customization for most of these tools to only get easier, it is possible that my experiences with using the software may vary somewhat from your own experiences. All screenshots are mine, not promotional shots. The applications are listed roughly in order of usefulness, with

the ones at the end really being more like blurbs. I’ve tried to keep the jargon to a minimum while at the same time realizing I’m writing for information professionals with some degree of computer experience. Any words you don’t understand are sure to be readily Googleable, but I hope there aren’t many of them.

## Firefox Web Browser: You May Already Be Using Open Source

Firefox is one of the most popular and widely known OSS tools. It has roughly 14 percent of the browser market share as of January 2007, second only to Microsoft’s Internet Explorer.<sup>1</sup> Firefox offers a lightweight browser that operates the same across different operating systems. Firefox can be customized in many different ways, from using “themes” to adjust its look and feel to expanding its functionality with a wide range of plugins and extensions (see figure 8). If you have PCs in your library, you can install Firefox and use a theme to mimic both the look and



**Figure 8:** Firefox with an Internet Explorer style theme and buttons.

the functionality of Internet Explorer, which may ease the “new browser shock” for patrons and staff who are used to using IE.

### Firefox Web Browser

www.mozilla.com

http://en.wikipedia.org/wiki/Firefox

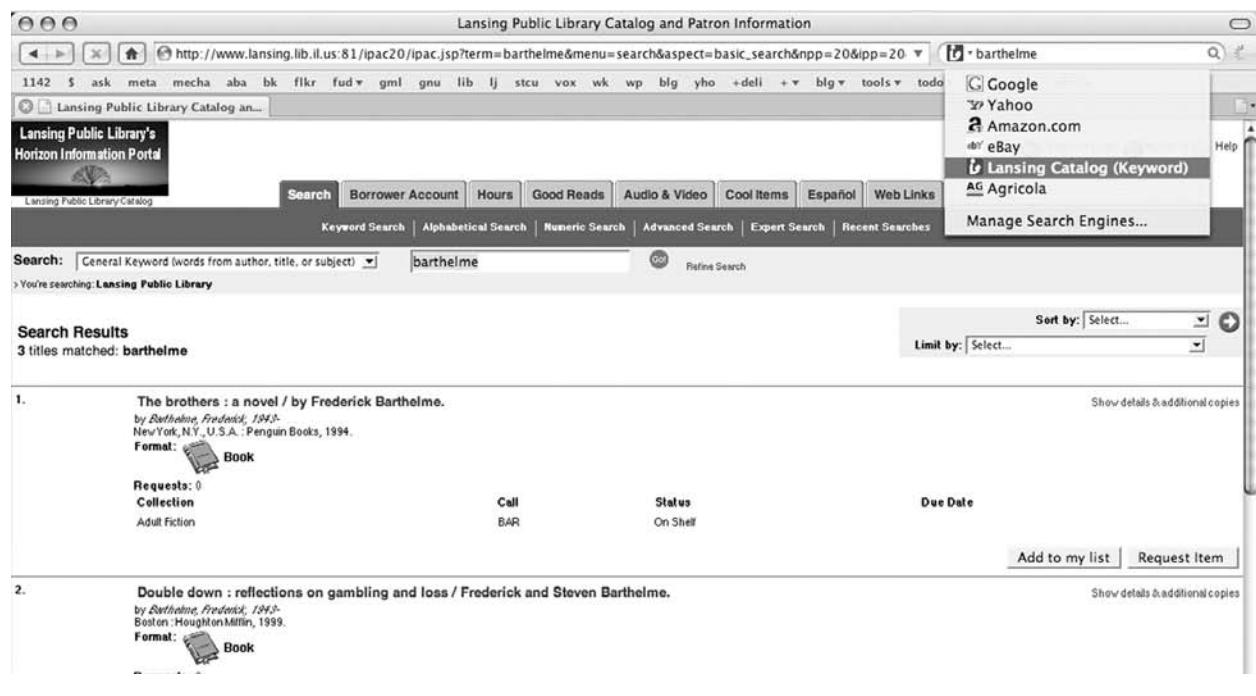
Firefox has a few obvious major advantageous features and some less obvious ones. It comes with a search box built into the toolbar with major search engines already listed. Users can also install or write plugins for search engines of their choice. Instead of navigating to Yahoo or Google or a library home page and then using the search box, users can type their query directly into an always-available search box and have the results appear in a Web page. Many libraries have created their own custom search plugins for searching their library catalogs or some of their library databases (see figure 9). The Mycroft Project is an online collection of these search plugins, and there is a searchable directory available at the site. It has over 10,000 available plugins, including searches of dictionaries, popular Web sites such as eBay and the Internet Movie Database, and social software sites such as del.icio.us and Flickr.<sup>2</sup>

The big thing that separates Firefox from other browsers is an extension called Greasemonkey. When you have installed Greasemonkey into your Firefox browser—a

very simple operation—you can run scripts that actually affect how the browser displays the Web pages you visit. A script may do something as simple as highlighting search keywords on a page if you reached it through a search engine, or as complex as making a Web site more legible or accessible to people with disabilities. The scripts can actually change the text on a page, removing ads, highlighting words, or changing formatting. The Greasemonkey extension is a sort of mini-program within Firefox that can be used to run scripts. There is a huge repository of these scripts online. Most people who use Greasemonkey don’t write their own scripts; they use one that someone else has written. Here are some example scripts that libraries have written, to give you an idea of the types of things a Greasemonkey script can do:

- **IMDB Search Library Catalogue from Name Page:** When the Internet Movie Database displays a page relating to a person (a “name” page) the script inserts a search link into the Hamilton Public Library (Hamilton, Ontario, Canada), labeled “HPL,” for each movie listed on the page.
- **San Francisco Library Lookup:** Search the San Francisco Public Library Catalog from Amazon book listings (see example in figure 10).

Sometimes scripts are written by users to fix “annoyances” in library Web sites. For example, LPLFixup allows script users to alter the view of the library’s Web site to do such things as “remember your library card number



**Figure 9:** Searching the Lansing Public Library Catalog from the Firefox toolbar.



**Figure 10:** Two screenshots of an Amazon.com page for the book *Friendly Persuasion*. The second example is using the Greasemonkey San Francisco Library Lookup script.

and PIN and fill in the login form” and “automatically log in when you are presented with a login form” on the Lacrosse (Wisc.) Public Library’s Web site. Note that all of these scripts affect the page only when viewed on the computer the script is on and when the script is enabled. So a Firefox browser with Greasemonkey installed could have a variety of scripts available to the user, who could turn them on and off at will.

If you don’t see a script that works well for your library, you might want to investigate LibX, which allows libraries to build their own extensions and library-branded toolbars without installing Greasemonkey by using a toolkit of prebuilt widgets. They support most major OPACs and allow users to do things like search from a right-click contextual menu, interact with Google Scholar with appropriate levels of permission, and access proprietary content from off campus by using proxies.

The most important thing about Firefox is what it doesn’t have: incompatibilities with any Web standards. While there are still some Web sites out there that are made with FrontPage and do certain things only in Internet Explorer, Firefox is standards-compliant and correctly renders Web pages. Safari users may be aware of certain JavaScript limitations with Safari, but Firefox for the Mac does not have those problems. My favorite version of Firefox is the Portable Firefox application, which can be stored on a USB key drive bundled with a small launcher application so that you can have your own customized version of the Firefox browser, complete with your passwords and bookmarks, to use anywhere on any platform that will accept a USB drive. Check the Portable Apps home page listed in the Firefox Resources box for more information on portable versions of most of the applications listed here.

Lastly, Firefox can fix some things that are less than optimal about the Web experience. It can block popups, enable or disable JavaScript or images on a particular site, and change the default font sizes (see figure 11). You can set it to clear your cache and cookies at intervals that you determine, and the default settings are cautious, not “allow everything.” It also allows you to pick the helper applications of your choice for opening documents in other



**Figure 11:** Firefox has simple ways to block popup advertisements and allow or block JavaScript on a site-by-site basis.

file formats and has a built in spell checker for whatever you type into your browser.

## Firefox Resources

*Mycroft Search Plugins*  
<http://mycroft.mozdev.org>

*Greasemonkey Script Repository*  
<http://userscripts.org>

*Portable Apps*  
<http://portableapps.com>

*LPL Fixup*  
<http://freecog.net/2006/lplfixup>

*Make Firefox Look Like IE*  
[http://johnhaller.com/jh/mozilla/firefox\\_internet\\_explorer](http://johnhaller.com/jh/mozilla/firefox_internet_explorer)

*LibX*  
[www.libx.org](http://www.libx.org)

## NeoOffice and OpenOffice.org: Microsoft Office without Microsoft Prices

One of the most surprising pieces of software for people unfamiliar with open-source tools is the OpenOffice.org/NeoOffice combination. OpenOffice.org runs on Windows

and Linux machines. It is also installable on OS X machines, but with a slightly more complicated install process (see figure 12).

### NeoOffice

<http://neooffice.org>

<http://en.wikipedia.org/wiki/NeoOffice>

### OpenOffice.org

<http://openoffice.org>

<http://en.wikipedia.org/wiki/OpenOffice.org>

NeoOffice is a version of OpenOffice.org created specifically for OS X computers (see figure 13). This chapter was written using NeoOffice tools, including setting up spreadsheets, writing the document, and reading other people's PowerPoint presentations for reference. The surprise here is that these tools mimic the functionality of Microsoft Word, Excel, PowerPoint, and Access at a much lower cost (see figure 14). They have many of the same keyboard shortcuts—Ctrl-C or Command-C for copy—toolbar buttons, and general functionality.

This is not to say that going back and forth between Word and NeoOffice, for example, is completely seamless. NeoOffice can open Word documents and save documents in Word format (.doc). However, users must make an extra step to make sure to save their document in Word format and not in OpenOffice.org's default .odt format. It has also been mentioned that OpenOffice.org cannot open older Word for Macintosh (.mcw) files. OpenOffice.org and NeoOffice are both single programs that operate as a suite of smaller programs and are similarly interoperable with Excel, Access, and PowerPoint, in addition to having drawing and math formula tools available. Both sites have



**Figure 12:** The OpenOffice.org Windows installation process is not difficult.

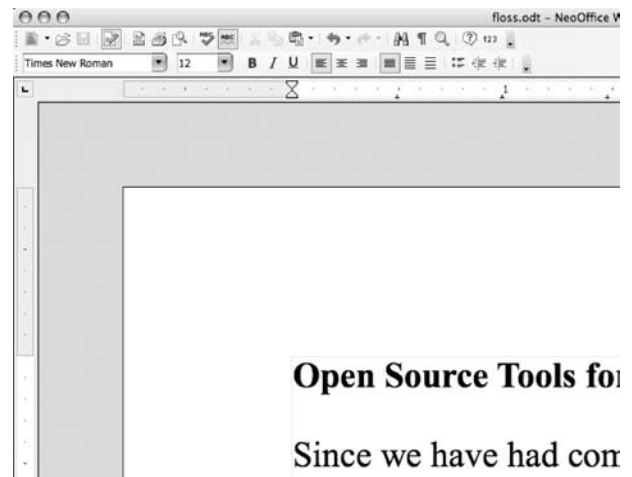
support and information wikis available, which are helpful for answering most basic support questions. Using the native Help feature built into the programs is actually quite simple and requires no interaction with a talking dog or smarmy paper clip. NeoOffice also comes with some other built-in tools such as a linked "bibliography builder" and a mail-merge wizard that is significantly simpler than the one built into Microsoft Word.

The second most popular application in the NeoOffice/OpenOffice.org suite is the Calc tool that is analogous to Microsoft's Excel spreadsheet application.

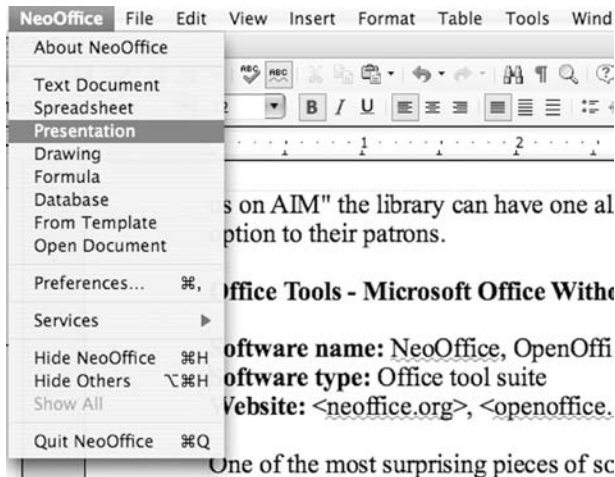
It works similarly to Excel and can import basic and standard Excel spreadsheets with no difficulty. There are some incompatibilities with importing complicated spreadsheets and charts, which may require a little bit of retooling to the imported version. You can save Calc documents in all the standard Excel formats as well as OpenOffice.org, NeoOffice, csv, and html formats among others (see figures 15 and 16).

The PowerPoint-like application is called Impress and functions similarly to PowerPoint. Users may notice a lack of built-in templates—which seems to be the largest divergence from PowerPoint's stock features—but many templates are available on the Internet and could be pre-installed to any local version of the software. Users can also take advantage of the Open Clip Art Library, 6,500 public domain images that can be used in any of the OpenOffice.org/NeoOffice products. Impress has the ability to export slideshows as PDFs, ppt files, or Flash files, so that they can be played on any computer with Flash, not requiring any Office tools.

One of the considerations when looking at changing software suites—such as making a move from Microsoft Office to OpenOffice.org—is evaluating what sort of training will be required to use the new software (see the office suite comparisons in the Resources box on page



**Figure 13:** NeoOffice has a familiar look and feel.



**Figure 14:**  
NeoOffice is a set of office tools all together in one application.

46). Reviews of the new version of Microsoft Office 2007 (retail price ranging from \$149 for a student edition to \$649 for the Ultimate edition),<sup>3</sup> which was released at the same time as Windows Vista, have suggested that there is a bit of a learning curve for users migrating from older versions of Office. If your library is considering a move to Vista and a new suite of Office tools, it might be a good time to consider a switch to an open-source office suite.

## Office Suite Resources

*OpenOffice.org Wiki*

[http://wiki.services.openoffice.org/wiki/Main\\_Page](http://wiki.services.openoffice.org/wiki/Main_Page)

*NeoWiki (NeoOffice Wiki)*

<http://neowiki.neooffice.org>

*Comparison: Office 2003 vs. OpenOffice.org*

[www.eweek.com/print\\_article2/0,1217,a=124918,00.asp](http://www.eweek.com/print_article2/0,1217,a=124918,00.asp)

*Comparison of Office Suites*

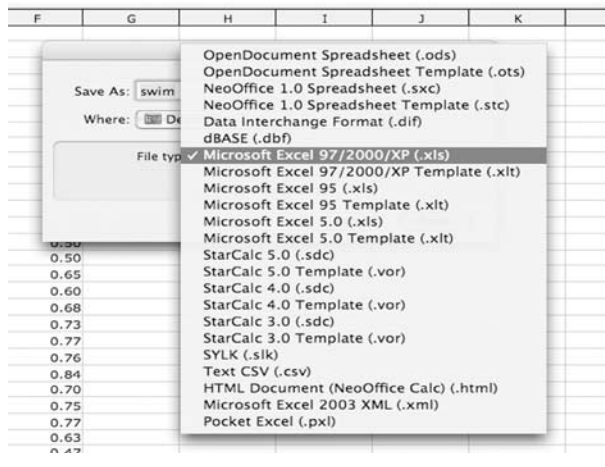
[http://en.wikipedia.org/wiki/Comparison\\_of\\_office\\_suites](http://en.wikipedia.org/wiki/Comparison_of_office_suites)

*Open Clip Art Library*

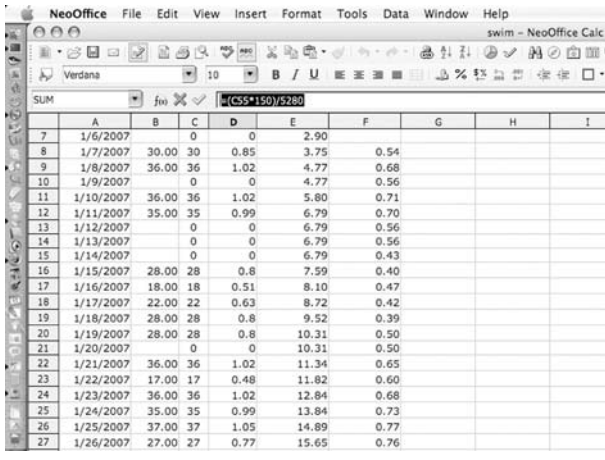
[www.openclipart.org](http://www.openclipart.org)

## Gaim and Adium: Low-Cost Outreach and Chat Reference

IM is a popular method of communicating. AOL, one of the largest messaging networks, estimates it has more



**Figure 15:**  
NeoOffice's Calc has many options for how to save spreadsheet documents.



**Figure 16:**  
NeoOffice's Calc program strongly resembles Microsoft Excel.

than 100 million users of its messaging service.<sup>4</sup> Much has been made of "co-browsing" tools that allow librarians to interact with patrons, type messages to them, and "push" Web pages at them in a browser-like environment. These tools are often used in reference consortiums offering round-the-clock librarian access. However, there are ways of providing some of these services using simple instant messenger software, and there are some feature-rich open-source options. Note that while these tools are open source, the major networks that relay the IM traffic—AOL, Yahoo, and Microsoft—are proprietary services. There is an open standards-based protocol and an open-source client called Jabber that is somewhat beyond the scope of this discussion of tools.

Both Gaim and Adium allow users to connect to all the major IM networks simultaneously, including the newish GTalk network (see figure 17). Gaim runs on Windows and Linux machines, and Adium is the preferred open-

source chat client for OSX, though Gaim *will* run on a Mac using Apple's X11 interface. In short, if you want a seamless way to use IM on a Mac, use Adium. Both clients are as easy to install as any commercial software package. However, they differ from the standalone clients for each service—AIM, Yahoo! Messenger and Windows Live Messenger—in that they can log in to multiple accounts at once, so a user can have a shared buddy list of users on all the different supported platforms.

### Adium

[www.adiumx.com](http://www.adiumx.com)

<http://en.wikipedia.org/wiki/Adium>

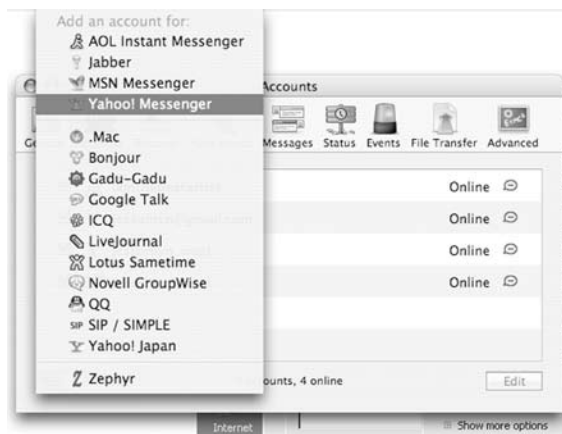
### Gaim

<http://gaim.sourceforge.net>

<http://en.wikipedia.org/wiki/Gaim>

<http://pidgin.im>

These can be split up in separate groupings, but they don't necessarily have to be split by platform. An icon

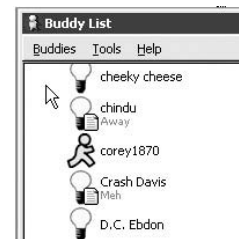


**Figure 17:** Gaim and Adium users can sign on to many different IM networks.

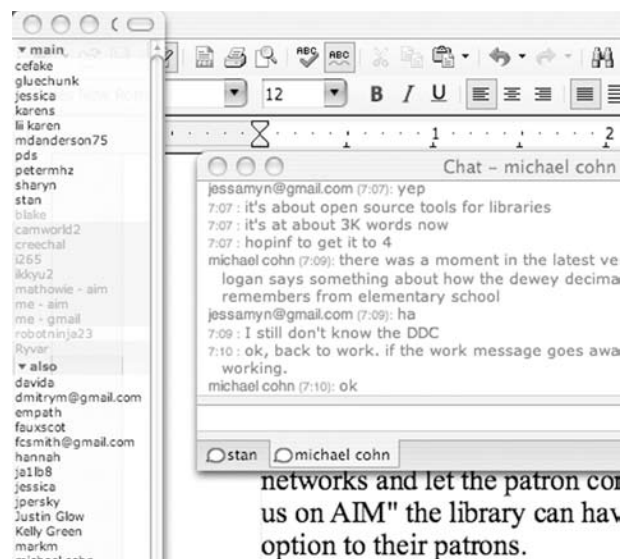
next to the IM handle shows what network the user is on (see figure 18). However, for most basic IM functionality, the network that the user is on doesn't matter. In this way, a library can register a handle on the major IM networks and let patrons contact the library on the platform of their choice. So instead of saying "Contact us on AIM," the library can have one all-purpose handle and present a more platform-neutral contact option to their patrons.

Other features easily available to users of these tools include tabbed IM windows, making it easy to maintain multiple chat sessions at once, and a variety of customizable themes that can make the software have the look and feel that staff or patrons prefer, even if what you prefer is to make the software look like the proprietary client (see figure 19). Adium has just recently released a 1.0 version of its software, and the project's Web site includes a blog, a busy support forum, and videos guiding newer users through the steps required to download, install, and use the software.

Gaim is also themeable and has support forums, screenshots, and bug trackers via the SourceForge Web site. Both offer the same features as regular IM clients: the ability to use away messages to indicate your status;



**Figure 18:** Different icons indicate what network your buddies are on.



**Figure 19:** A very bare bones Adium theme.

ability to send hyperlinks and files back and forth; a maintainable buddy list; message encryption; alert noises. If you are already using an IM client from one of the major services, you will find the open-source alternatives much easier to use, ad- and clutter-free, and easier to customize for your own purposes.

## Chat Resources

### *Comparison of Instant Messaging Clients*

[http://en.wikipedia.org/wiki/Comparison\\_of\\_instant\\_messaging\\_clients](http://en.wikipedia.org/wiki/Comparison_of_instant_messaging_clients)

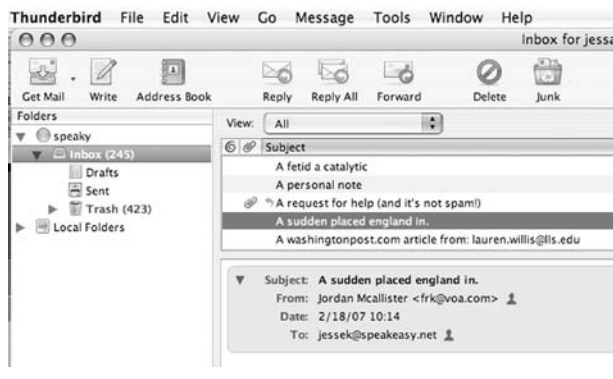
## Thunderbird: Block Phishing and Spam and Start Liking Your Inbox Again

Thunderbird is a local e-mail client—i.e., not a Web mail tool—that functions similarly to Microsoft Outlook, but with more built-in security and optional extensions that allow you to customize it. It runs on Windows, OSX, and Unix machines. It also can be used as a newsgroup reader. As with Firefox, a long list of themes can be used with Thunderbird, including one that can make it look very similar to Outlook (see figure 20). Thunderbird supports extensions, and there is a large developer community creating them. Popular extensions include an integrated calendar tool, an ad blocker, a file download manager, and dictionaries in many languages.

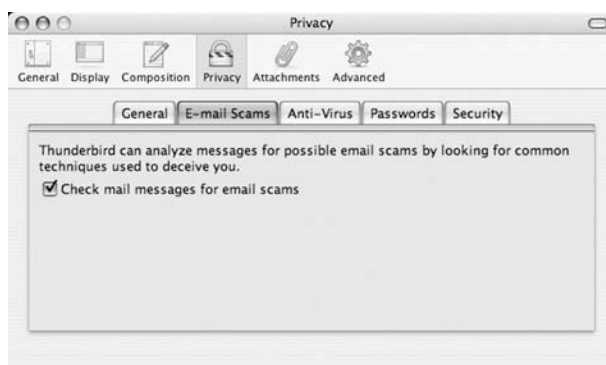
### *Thunderbird*

[www.mozilla.com/en-US/thunderbird](http://www.mozilla.com/en-US/thunderbird)  
[http://en.wikipedia.org/wiki/Mozilla\\_Thunderbird](http://en.wikipedia.org/wiki/Mozilla_Thunderbird)

Thunderbird is an e-mail program concerned with security; it allows users to send their e-mail using SSL (secure sockets layer) protocols and offers support for message encryption, with a PGP extension being an optional add-on. Newer users will appreciate its phishing filter, which highlights and warns against messages that redirect users to nonobvious sites with “Thunderbird thinks this message might be an e-mail scam” (see figure 21). Users can train the program to recognize junk mail and spam using its adaptive filters, which improve as more data is added to them. Obviously this is not likely to be a tool to have on public-access computers, but for staff who are used to interacting with Outlook, or especially the free limited-featured Outlook Express, this will be a considerable step up.



**Figure 20:** Thunderbird’s interface will look familiar to Outlook and Entourage users.



**Figure 21:** Thunderbird will check your incoming e-mail for well-known scams.

## Odds and Ends—Titles You Might Not Be Aware Of

### GIMP: The General Image Manipulation Program

If your library has a Web site that staff work on, or if you have some version of Photoshop on your public-access computers, GIMP is a free and easy-to-use substitute. GIMP stands for GNU Image Manipulation Program and has been in development since 1997.<sup>5</sup> It’s head and shoulders above the standard Windows system tools for editing and manipulating digital images (see figure 22). It also has more features than iPhoto and is more of an editing tool than a photo management tool. GIMP is a little difficult to install since it requires some extra files to be installed at the same time—X11 for the Mac and the GTK+ 2 Runtime Environment for Windows. Both of these sets of files are free, and the GTK files are provided on the GIMP for Windows download page. GIMP does not run on pre-OSX Macs.

## GIMP

<http://gimp.org>

<http://en.wikipedia.org/wiki/GIMP>

## VLC Video and DVD Player

Can your patrons play DVDs on your library's computers? Do you need to watch DVDs on a library computer but find Windows Media Player overwhelming or the Apple DVD Player just a bit too minimalistic? VLC is a multimedia player that will easily let users play most types of media files with the notable exception of Real Media streams. It's small, easy to install and run, and works with all major operating systems (see figure 23).

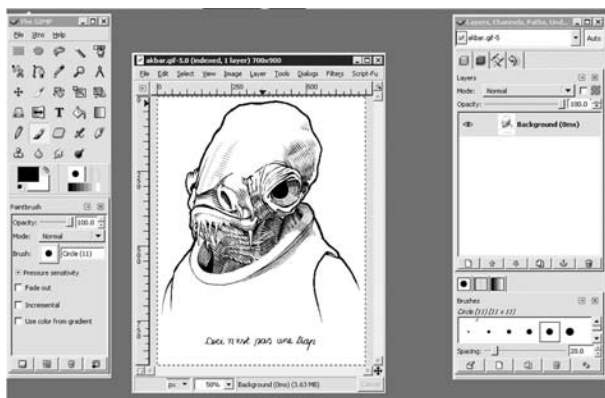
## VLC

<http://videolan.org/vlc>

[http://en.wikipedia.org/wiki/VLC\\_media\\_player](http://en.wikipedia.org/wiki/VLC_media_player)

## Try Them, They're Free

While the sheer quantity of open-source software out there can make shopping around for good software tools seem a bit daunting, there are many solid and time-tested applications available. Many of them resemble proprietary software, which makes them easier to learn and interact with. At the same time, these open-source tools are free, so the cost for trying them out is only the time it takes to download and install them. These tools also *stay* free, so if you decide you like them, they're yours for the cost of keeping them upgraded. Many libraries are shifting to partial or total open-source solutions for their public-access and staff computers and are finding the initial time and effort outlays to be well worth the lower cost of use and maintenance.



**Figure 22:**  
GIMP's toolbars and layer palette.

## General Resources

### OSS in Libraries

<http://oss4lib.org> and <http://code4lib.org>

### Open Source for Windows

<http://osswin.sourceforge.net>

### Open Source Alternatives

<http://osalt.com>

### OSS Directory

[http://en.wikipedia.org/wiki/Portal:Free\\_software](http://en.wikipedia.org/wiki/Portal:Free_software)



**Figure 23:**  
VLC is a simple DVD player with many other multimedia features.

## Notes

1. "Browser Market Share for February, 2007," on the Hitslink Web site, <http://marketshare.hitslink.com/report.aspx?qprid=0> (accessed Mar. 19, 2007).
2. "Mycroft," on the mozdev.org Web site, <http://mycroft.mozdev.org> (accessed Mar. 19, 2007).
3. "2007 Microsoft Office System Pricing," on the Microsoft Office Web site, <http://office.microsoft.com/en-us/suites/FX101754511033.aspx> (accessed Mar. 19, 2007).
4. Stacey Cowley, "IM Interoperability Stalled, AOL Battles Trillian," Feb. 22, 2002, on the PC World Web site; [www.pcworld.com/article/id,86024-page,1/article.html](http://www.pcworld.com/article/id,86024-page,1/article.html) (accessed Mar. 19, 2007); "AOL Instant Messenger," on the AOL United Kingdom Web site, <http://info.aol.co.uk/aim> (accessed Mar. 19, 2007).
5. "GIMP," Wikipedia, <http://en.wikipedia.org/wiki/GIMP> (accessed Mar. 19, 2007).