Metamedia Translates into Classroom Innovation

Lee Ridgway

Harnessing technology for innovative approaches to teaching took off in the late 1980s, when desktop computers showed their potential as multimedia platforms. This emerging technology captured the imaginations of several MIT faculty in Foreign Languages and Literature, in the School of Humanities, resulting in the development of a number of experimental interactive environments to help students learn a foreign language and culture.

Before the Web, the underlying technology for multimedia environments was often specific to a project. The end product, such as a CD-ROM or video disk, required a very specific set of hardware to operate properly. It became clear that what was needed was a set of development tools that could be applied to a range of subjects, that still allowed for customization of the material, and that would be commonly available.

Which brings us to Metamedia, a flexible teaching tool that enables faculty to enrich their classes with web-based media resources. A project in the Comparative Media Studies program, Metamedia is sponsored by the d'Arbeloff Fund for Excellence in Education. The project began over three years ago, under the direction of Humanities faculty members Peter Donaldson, Kurt Fendt, and Henry Jenkins. Each had developed technology-based, media-rich educational projects for their respective courses: Donaldson on Shakespeare, Fendt for German, and Jenkins for film.

Concept and Practice

These three conceived of Metamedia as a framework within which faculty – even those who have not worked in multimedia before – could create an archive of materials related to a subject. Using the Metamedia tool that's available today, faculty can create an archive that includes text, video, photos, scanned images from printed or other sources, facsimiles of documents, and sound. From this archive, faculty can put together customized collections designed to support the classroom study of the subjects they teach.

For students, the collection for a given class is there not just to view, but to reflect on, critique, modify, extend, add to, create from, publish – using any media supported by the technology. Metamedia helps students focus on the key aspects of humanistic studies: they can compare, create relationships between, and interpret documents (in whatever medium); set new contexts for the resources; and explore new ways of learning. The idea is to engage students not just as learners but also as humanities researchers, using the same kinds of thinking, skills, and activities that they would use in scientific research.

continued on page 2
The structure behind Metamedia is XML-based open metadata standards such as the Dublin Core, the Text Encoding Initiative, MPEG-7 for video and sound, and the Sharable Content Object Reference Model. These and other standards ensure that data in the archives are portable across different platforms.

As with any successful application, Metamedia’s interface is easy to use and aesthetically pleasing. It continues to be refined, based on feedback from teachers, students, and developers.

Project Snapshots

Thirteen Metamedia curriculum projects are being used in classes or are in development, with six or seven more set to begin this summer. Highlighting a few projects can give a feel for the possibilities of Metamedia:

- **Cultura.** Led by Professor Gilberte Furstenberg, Cultura began in 1997 as a way to connect MIT students taking an intermediate French class with students taking an English class at a university in Paris. Cultura began using Metamedia in the fall of 2003 as a way to facilitate the forums between students. With Metamedia, the students easily exchange images as well as texts. Through online discussions, they analyze, question, comment, and otherwise respond to these representations of their respective cultures at a level of involvement that might not be possible otherwise.

- **Balanchine Dance Archive.** MIT dance professor Tommy DeFranz has built a collection around the work of choreographer George Balanchine, particularly his ballet Agon. The collection includes video clips, photo and silhouette images, reproductions of musical scores, the music itself, writings, and other artifacts related to Balanchine’s dance. Metamedia makes it possible to view a score with a video of the dance, use tools for a close analysis of the video, mark and tag elements of an item in the collection, and juxtapose different video clips for critical comparison.

- **American Authors Project.** For a class in American fiction, Wyn Kelley, senior lecturer in literature, created an archive of materials related to Herman Melville’s Moby Dick. Using various media, students correlated their reading of the novel with the people, practices, and songs of the 19-century whaling industry. This approach proved so successful that Kelley has developed the archive to cover 11 authors. She is now at work on a British Authors archive.

A Model of Collaboration

Metamedia may bring to mind other educational technology work at MIT, and rightly so. The Metamedia team is working with OpenCourseWare (OCW) and DSpace to strengthen digital-collection building at MIT. Discussion is under way to make OCW’s extensive collection of copyright-cleared images available through Metamedia.

Collaboration with the Open Knowledge Initiative (OKI) is ensuring that Metamedia can connect with other learning technology services using OKI’s open architecture.

Another possible connection, with SloanSpace, would provide active learning components for the Sloan School’s executive education programs. Other educational institutions, museums, and archives are seeking to integrate Metamedia into their offerings.

A Framework for Exploring

Few areas of education are untouched by developments in technology or by the current emphasis on using multimedia. Metamedia gives humanists the framework to extend the idea of traditional text-based reading to all media. It also fosters a richer collaboration between students and teachers.

To further explore Metamedia, go to http://metaphor.mit.edu/
Staying in Step with E-Mail: Outlook 2003 and Eudora 6.1

- Bryant Vernon

Information Services and Technology (IS&T) now offers full support for Microsoft Outlook 2003 for Windows and Qualcomm’s Eudora 6.1 for Macintosh.

All About Outlook
IS&T has added Outlook 2003 to its supported products in response to requests from users. Outlook 2003 is part of the Microsoft Office 2003 suite. (Outlook Express, an e-mail program included with Internet Explorer, has a much more limited set of features.)

Note that Outlook 2003 can only be configured for IMAP mail at MIT. IMAP, short for Internet Message Access Protocol, lets you store mail on a post office server, where you can access it from multiple locations and computers. The MIT mail server has a 250MB quota per user.

The Outlook 2003 interface offers these benefits:

- The Navigation Pane lets you move quickly between Mail, Calendar, Contacts, and Tasks.
- The Reading Pane displays more information and so reduces scrolling in large messages.
- Quick Flags let you flag messages by priority or time sensitivity and find them in whichever folder they reside. You no longer have to store messages in your Inbox to serve as reminders.
- The Integrated Research task pane brings electronic dictionaries, thesauruses, and online research sites into Outlook 2003 so that you can find and incorporate information into your messages. (Some research resources require an Internet connection.)
- You can order messages by various criteria, such as date, subject, size, and importance.

For a complete list of features, see the Outlook 2003 for Windows page at http://itinfo.mit.edu/product?vid=614

TechTime Outlook Connector
IS&T plans to release the TechTime Outlook Connector in July. This software permits secure synchronization between your Outlook Calendar and TechTime. Once IS&T has released the Connector, you will be able to get system requirements, installation instructions, and other advice from the MIT TechTime page at http://itinfo.mit.edu/product?name=Techtime

Eudora 6.1 for Mac OS X
IS&T has released Eudora 6.1 for Mac OS X only. Since IS&T will significantly reduce support for Mac OS 9 as of June 30, 2004, it did not build a Eudora 6.1 installer for Mac OS 9. Likewise, IS&T is not supporting a Windows version of Eudora 6.1, since Eudora 6.1 has documented problems with IMAP under Windows.

Eudora 6.1 offers these key features:

- The Content Concentrator lets you group multiple messages on the same topic and view them at once in the message preview.
- WebWords lets you activate a contextual search in the Google search engine by clicking on a word or words in your e-mail. You can also start a Web search via the toolbar.
- The Mailbox Drawer icon lets you quickly view a list of your folders and mailboxes.
- Eudora, see the Eudora 6.1 for Macintosh instructions, and advice on setting up a new Eudora, at http://web.mit.edu/software/mac.html

IS&T has released Eudora 6.1 for Mac OS X since Spam Screening, an established IS&T service, works best in the MIT environment.

SMTP Authentication
Both Outlook and Eudora support Simple Mail Transfer Protocol (SMTP) authentication for outgoing e-mail, which adds a layer of security to sending e-mail.

The benefits of SMTP authentication include reducing e-mail abuse, protecting the transfer of e-mail messages, and addressing the concerns of Internet Service Providers (ISPs) who filter or disallow unauthenticated SMTP traffic.

MIT e-mail users should enable SMTP authentication for their e-mail client by following these instructions:
http://web.mit.edu/ist/topics/email/smtpauth/

Support
If you have questions about Outlook or Eudora, contact the Computing Help Desk at <computing-help@mit.edu> or 253-1101.
Be More Secure with MIT Windows
Automatic Update Service
• Richard Edelson and Jonathan Hunt

Information Services and Technology (IS&T) has introduced a new service to help Windows users keep their systems up to date and protected against the latest security and virus threats. The MIT Windows Automatic Update Service (WAUS) provides subscribers with timely operating system and security patches.

WAUS may be used by MIT faculty, staff, and students on MIT-owned and personal machines. Any PC running Windows 2000 SP3 or later, Windows XP, or Windows Server 2003 can be configured to use the service.

WAUS – MIT’s own implementation of Microsoft’s System Update Service – offers a more limited selection of patches than those available from Microsoft. WAUS focuses on updates for vulnerabilities that Microsoft rates as “Critical” or “Important.” These patches are available within 48 hours of their release from Microsoft. The delay enables IS&T to test patches with a suite of MIT-supported applications, evaluate impacts on the central win.mit.edu domain, and monitor industry lists for reports of problems. When needed, IS&T will post updates more quickly to ensure that the community receives patches for the most serious vulnerabilities as soon as possible.

IS&T provides a list of approved and unapproved patches at http://web.mit.edu/ist/topics/windows/updates/approved.html

Service Packs/Office Updates
WAUS will also be used to deploy service packs. It currently provides Windows 2000 SP4 and Windows XP SP1. Windows XP SP2 will not be available via WAUS until it has been thoroughly reviewed for use at MIT. Those who wish to install Windows XP SP2 should do so manually when it is available. This will not affect the ability of subscribers to benefit from post-SP2 patches.

WAUS does not provide updates for Microsoft Office, including Outlook. To keep Office and Outlook secure, check for updates posted on Microsoft’s Office Downloads page at http://office.microsoft.com/OfficeUpdate/default.aspx

http://windowsupdate.microsoft.com

Client-Side Features
The WAUS client is based on Microsoft’s Automatic Updates technology for Windows XP, but with significant enhancements. Key features include

• Built-in security. Before installing an update, WAUS verifies that Microsoft has digitally signed the files.

• Accurate detection of necessary updates. WAUS uses the same proven technologies as the Windows Update site to scan a system and determine which updates are applicable.

• Automatic installation of approved updates. Administrators and users can configure WAUS to automatically download updates, and can specify a time for installation. If the system is turned off at that time, WAUS can be configured to install updates as soon as the computer is turned on.

• Options for administrators. In Active Directory environments, administrators can configure updates using Group Policy. Otherwise, they can remotely configure WAUS using registry keys through a logon script or similar mechanism. Administrators can also download and install updates manually.

• Chained installation. If multiple updates are being installed and one or more of them requires a restart, WAUS installs them all together and then requests a single restart.

• Background downloads. Since WAUS uses only idle bandwidth to download updates, it does not interfere with other network activity, such as Internet browsing.

Need Assistance?
For help with WAUS, contact the Computing Help Desk at 253-1101 or <computing-help@mit.edu>.


http://windowsupdate.microsoft.com

This column presents announcements about IS&T-supported software. For more information about recent releases, see http://web.mit.edu/swrt/

What’s New in the Volume and Site Licensed Software (VSLS) Arena
IS&T offers several operating systems, engineering packages, and office applications to MIT faculty, students, and staff at a discount, or in some cases at no charge. Popular examples include Windows XP, Mathematica, and Dreamweaver.

IS&T makes this software available through volume or site agreements with the vendors. Each of these license agreements is different. Some restrict use of the software to MIT departments only, while others allow for personal and/or student use. Some permit software distribution over the network, while others limit distribution to CDs.

In terms of new releases, the VSLS team is distributing FileMaker Pro 7 and MATLAB Release 14. Several annual licenses are up for renewal, including ABAQUS, I-deas NX, and Mathematica. If you use these packages, be sure you have requested the software for FY2005 so that you can continue to use it without interruption.

For details on these and other offerings, go to the VSLS page at http://web.mit.edu/ist/products/vsls/

Improved Ordering
VSLS has improved its ordering process to expedite requests. Since the process may have changed since you last ordered software, check the VSLS web site for up-to-date instructions. For example, if you already paid for MATLAB this year, you can get a new license key for R14 by sending e-mail to <vsls@mit.edu>. Be sure to enter MATLAB R14 in the subject line and include your previous invoice number.

The VSLS team is working to implement a new ordering system by early 2005. This system will provide an electronic shopping cart and accept credit cards, in addition to MIT requisitions.

On the Move
The VSLS team recently moved from the Stratton Student Center (W20) to Building N42 at 211 Massachusetts Avenue. If you plan to pick up software in person, please note the new address.

This column presents announcements about IS&T-supported software. For more information about recent releases, see http://web.mit.edu/swrt/
Getting to the Point: Insights from the IS&T News Survey

Robyn Fizz

First, a warm thanks to the 300 members of the community who completed the IS&T news survey – either online or by filling out the form in the March/April issue of is&t. Twenty lucky respondents are getting an extra token of thanks: a pair of movie tickets from MITAC.

IS&T has posted the survey results at
http://web.mit.edu/ist/survey/istnews/results/

Here’s a summary of what you told us.

Readership and Modes of Reading

Of the survey respondents, 85% were administrative or support staff. Most of the respondents (95%) read the is&t newsletter. About half read each issue and 29% read most issues. The preferred ways to get news from IS&T are:

1. The print version of the newsletter
2. A news summary with URLs, sent by e-mail
3. An online newsletter

Of those who prefer a printed newsletter, half want to get it in campus mail, while half would be open to printing it as a PDF file or directly from the Web.

Top-of-the-List Topics

The IT topics of most interest to readers were new services from IS&T and computer tips (Q&As). Also nabbing more than 150 votes each were in-depth articles about software, news about administrative applications, and security and virus alerts.

Some respondents asked for coverage of planned changes to infrastructure and operations that might have broad impacts in the future. A few felt that an opinionated columnist might add some punch.

Key Themes

Many respondents like is&t as it is. Some would like a friendlier tone and more open layout (more images, white space, and call-outs).

Those who favored the idea of an e-mail summary with URLs note that it would keep news short and to the point. Users could quickly scan for items of interest, and since news could be sent more often, it would be more up to date.

A few themes emerged from comments about how IS&T delivers news.

- Make sure there’s news for the full spectrum of the audience – from technophobe to expert, but keep the average user in mind. When possible, target news to constituencies.
- Deliver news to customers via print or e-mail, rather than relying on them to find it on the IS&T web site.
- Focus on what customers need to know, not on the IS&T organization.

Looking Ahead

IS&T is actively exploring the best ways to deliver news to the MIT community. The costs and benefits of the print version of is&t are being evaluated. IS&T is also investigating other options, including news summaries by e-mail, a redesigned online version of is&t, and news feeds that subscribers can read through free newsreader software. In this spirit of exploration, IS&T recently launched an interactive newsletter for faculty, with news feeds and e-mail updates. For details, see the article on Ed Tech Times below.

If you have other ideas about how to get news from IS&T, contact Robyn Fizz at <fizz@mit.edu> or 253-0540.

IS&T Academic Computing Introduces Ed Tech Times

Vijay Kumar and Jean Foster

Information Services and Technology (IS&T) has launched a new publication, Ed Tech Times, at
http://edtech.mit.edu/times/

This interactive, online newsletter focuses on academic computing and educational technology.

The change in format and delivery from its predecessor, The Insider, is intended to address the current nature of educational technology activity at MIT – dynamic and diverse, with a high level of engagement across campus. With the participation of faculty, staff, and students, this interactive site promises to be a rich and relevant resource for the community.

Sharing Strategies and Solutions

MIT’s educational technology landscape is marked by growth and transition. Significant initiatives such as iLab, TEAL, and OpenCourseWare are moving into the next phase of implementation. New services and areas of activity, such as High-Performance Computing and Spatial Data, are in place.

MIT is planning changes in the student computing environment, and building a sustainable software infrastructure for education. In light of these projects, there is a great need to share strategies and solutions and to receive feedback to support good decisions and best practices.

Ed Tech Times provides a forum for MIT’s academic community to announce and discuss these developments as they occur. Content includes articles about educational technology services and research projects on campus, as well as links to related news outside of MIT.

Ed Tech Times also tracks events and presentations about education technologies, such as Crosstalk seminars and training opportunities.

Interactive Features

The newsletter has been designed to allow readers to comment on articles, and feedback is very welcome. Comments are subject to review before they are posted to ensure appropriateness for a world-readable site.

Other features of Ed Tech Times include the ability to subscribe to e-mail updates whenever an article is posted, or to receive a regular bimonthly e-mail synopsis of articles. You can also choose to view updates via a Real Simple Syndication (RSS) newsreader.

Submissions and Feedback

IS&T Academic Computing welcomes submissions of educational technology news from other organizations on campus. You can submit articles via e-mail, either in plain text or as attachments in Microsoft Word (.doc) or Rich Text (.rtf) format. Submissions go through an editorial review before being posted on the site.

IS&T would like to know what you think about this new format for educational technology news. Please add your comments to the “About the Ed Tech Times” article on the newsletter’s web site, or send mail to <edtech-times@mit.edu>.
Certificate Renewal
Certificates are your key to secure web services at MIT – from ECAT to SAPweb to Employee Self-Service. Personal certificates expire periodically, and renewal is not automatic. To get a new certificate that will last until July 31, 2005, go to http://web.mit.edu/ist/topics/certificates/ and click on the link “Get MIT Personal Certificate.” (Certificates obtained before June 2 will expire on July 31, 2004.)

If you use Safari (Macintosh) or Internet Explorer (Windows), you may have a more seamless experience renewing certificates if you do a little “housecleaning” up front: deleting old certificates before getting new ones.

Safari
With the introduction of Safari 1.2, Macintosh users can access certificate-protected web pages with Apple’s browser. Safari 1.2.2 is part of Mac OS 10.3.4 – a recommended upgrade for Mac OS X 10.3 users. Safari 1.2.2 fixes a bug that didn’t allow the browser to work with certain ECAT web pages.

To delete a certificate in Safari, follow these steps:
2. Highlight the keychain item with your full name. It should have a certificate icon next to it and the label “certificate.” You should see in the viewer below that this item will expire on Saturday, July 31 2004.
3. With this item highlighted, click Delete from the toolbar.
4. Get a new certificate.

Get a new certificate.

Click this date.

Tools>Internet Options.
Content tab.
Certificates.
Personal tab.
Remove.
Get a new certificate.

New Libraries Unit Offers Metadata Support for MIT
• Robert Wolfe and Heather Denny

The MIT Libraries have launched a unit to provide metadata support for digital production projects. Metadata Services provides solutions for preparing and applying metadata, and works to raise awareness of the importance of metadata for managing digital content.

What Is Metadata?
Metadata, sometimes referred to as “data about data,” can describe the subject matter of a resource, who created it, who owns the copyright, and how to store and access it. Metadata improves searching and retrieval within and across collections. It also helps to ensure the integrity of a resource over time, as digital formats evolve.

Metadata at MIT
MIT has a large and growing collection of electronic educational resources that are the product of its teaching and research mission. Programs such as Metamedia (see lead article), OpenCourseWare (OCW), and DSpace seek to preserve this content and make it available to a wider audience. Metadata is vital to these projects because it helps visitors find their way through digital libraries
- Descriptive metadata is used to search and browse catalogs of digital resources.
- Pedagogical metadata is used to define the use and value of digital resources as instruments of teaching and learning.
- Organizes complex digital resources
  - Structural metadata carries instructions for the organization and presentation of digital objects, and their relation to other resources.
- Manages the publication of content
  - Technical metadata provides information required to access and operate digital resources.
- Preservation and Rights metadata, two important types of technical metadata, are used to provide specific audiences with long-term access to digital resources.

The Metadata Services Unit
With years of experience organizing, describing, and managing information resources, the MIT Libraries recognized a need for metadata support for digital production projects. Metadata Services provides a fee-based service for faculty, students, or researchers who are building or maintaining collections outside of the Libraries’ auspices.

Metadata Services offers
- Consultation and project planning
- Development and implementation of metadata schemes and standards
- User interaction design
- Training in best practices for metadata creation and use
- Expert, cost-effective metadata production services

Metadata Services is collaborating with OCW to provide metadata production and consulting services, cataloging educational resources used in MIT classrooms. The unit has also helped the Singapore-MIT Alliance place the proceedings of their annual conferences into DSpace. Currently, Metadata Services is working with staff at the Metamedia project to enhance their use of metadata and ensure interoperability with other repositories of educational resources, including OCW and DSpace.

For more information about the services offered by the MIT Libraries’ Metadata Services unit, visit http://libraries.mit.edu/metadata/
Staying Connected When You’re Far from Home

Robyn Fizz

These days, with the availability of high-speed Internet access, using a laptop on the road is not much different than using it in the office. You can check e-mail and connect to the Web from almost anywhere in the world.

This article covers some basics about taking your laptop with you: from pre-trip preparations to connection options. For an online resource guide, see http://web.mit.edu/ist/topics/network/travel.html

If you don’t have a laptop, but want to check your e-mail or connect to the Web while traveling, read the sections on using e-mail and cybercafes.

Before You Go

Here’s what to do before you take off.

1. Make sure you have the necessary software installed on your laptop.
   For full access to MIT e-mail and web sites, you’ll need an e-mail program, web browser, Kerberos, and MIT web certificate on your laptop. If you don’t have the software, you can get it from http://web.mit.edu/software/
   To get a certificate, start at http://web.mit.edu/ist/topics/certificates/
   2. Sign up for the accounts you need and ask about options at your destination.
      Register for the accounts you need (e.g., iPass for remote connections), and find out what’s required at your destination. Do you need a cable? Does the hotel have wireless access?
   3. Test to make sure everything works.
      Once you have everything set up, do a trial run. Does your modem work? Can you get your e-mail? Is your battery charged? (You may need to turn on your laptop for security personnel in airports.)
      It’s a good idea to back up the data on your laptop, and to update your virus protection software and operating system security patches. And don’t forget to bring an emergency boot disk and backups of key software.
   5. Take extra steps for international travel.
      If you’re going overseas, take an electrical adapter kit. Also, make sure you have the original bill of sale for the laptop. Without this receipt, you may face a customs tariff when reentering the U.S.

iPass

Many MIT travelers need an inexpensive way to connect to the Internet. IS&T has contracted with JB Cubed, Inc. to provide iPass, a fee-based remote connection service that works anywhere in the U.S. and in over 150 countries. Using iPass, you can call a local access number and connect to the Internet without incurring long-distance charges.

You must register to use iPass and install the iPassConnect client software on your laptop. You will need to use your Kerberos username and password each time you connect to the network. The service is usage-based, so you are charged only for actual connection time. There are no start-up or monthly fees.

iPass also provides higher-speed connections in some locations, such as airports and hotels that offer wired and wireless broadband connections. Supported locations display automatically when you launch the iPassConnect client and enter your current location.

For more about iPass, see http://itinfo.mit.edu/product?name=ipass

Wireless Connections

Yet another way to connect when traveling is through wireless hotspots (WiFi). Access requires a laptop wireless card. For IS&T card recommendations, see http://web.mit.edu/ist/topics/hardware/wireless.html

In most cases, there is a usage charge for wireless access. For a directory of public-access WiFi hotspots, see http://www.wi-fihotspotlist.com/

Your cell phone provider may also offer wireless service for its area of coverage. Right now, though, these connections are fairly slow (56 to 200 kbps) and cost an extra $20 to $80 per month.

Using E-Mail

Once your laptop is connected to the Internet, you can use your regular mail client (e.g., Eudora, Outlook) to access your MIT e-mail. To ensure that you can send mail using iPass or another Internet Service Provider, configure your e-mail client to use SMTP authentication (see the Software Spotlight on page 3).

If you are using someone else’s computer (say, while visiting friends) or at a computer in a cybercafe, you can use MIT WebMail to access your MIT e-mail. This service works with almost any browser, almost anywhere in the world. It lets you connect to the MIT e-mail servers over a secure, encrypted link. The service is preconfigured for SMTP authentication and supports spam screening if you have it set up on your MIT e-mail account.

To use MIT WebMail, you need

- A web browser that supports SSL encryption and has JavaScript enabled
- Your Kerberos username and password
- Your incoming e-mail delivered to a central, IS&T-supported MIT post office server (Your @mit.edu account must not be forwarded to another address.)

For details, see the MIT WebMail page at http://web.mit.edu/webmail/

Need Help?

If you have questions about configuring your laptop for travel, contact the Computing Help Desk at 253-1101 or <computing-help@mit.edu>.

Cybercafes: Sip and Surf

Cybercafes are coffeehouses that provide Internet-connected computers for a fee. You can find them all over the world (see http://cybercaptive.com/).

Another option is to check for public-access computers at a library near your destination. Using a computer in a cybercafe or library is a good choice when

- You don’t have a laptop or don’t want to carry one with you
- You don’t mind using public machines to read your e-mail
- You’ve accepted the security risk that you may be transmitting your passwords in the clear

Once you’re done, remember to delete any certificates you have created (see http://web.mit.edu/ist/topics/certificates/delete.html) and to log out.
If you don’t know where to get help for your computer, network, or telephone problems, dial one of the help lines listed to the right.

If you prefer to use e-mail, you can send your questions to the corresponding e-mail addresses on the far right. (When logged into Athena, you can also use the olc command to send questions to Athena’s online consultants.)

You can also submit a question online via Casetracker at http://casetracker.mit.edu/

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For help with… | Dial… | Or send a message to…
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General computing questions (Macintosh, Windows, Linux, and network/connectivity) | 253-1101 | computing-help@mit.edu
Administrative applications | 253-1101 | computing-help@mit.edu
Athena Computing Environment | 253-4435 | olc@mit.edu
Computer and printer repairs | 253-0815 | pcservice@mit.edu
Computer presales consulting | 253-7686 | mcc@mit.edu
Disabilities and computing | 253-7808 | atic@mit.edu
Telephone and voice mail services | 253-3670 | telecom-csr@mit.edu
Telephone repairs | 253-4357 | 3help@mit.edu
Unix (by subscription) | 253-1103 | unix-vms-help@mit.edu

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Metamedia (see the lead article) lets faculty in the Humanities provide their students with a range of multimedia resources. While the Web may not be able to rival the richness of these resources, you can still explore the humanities online. The web sites listed on the right provide gateways to art and art history, film, literature, and music. With a little online roving, you can learn about art movements, literary periods, and musical styles. These sites also offer their share of multimedia experiences: you can watch a movie trailer, listen to a poet read, or stroll through a virtual exhibit.

All Music Guide
http://www.allmusic.com/

The American Academy of Poets
http://www.poets.org/

Artcyclopedia: The Fine Art Search Engine
http://artcyclopedia.com/

Bartleby.com: Great Books Online
http://www.bartleby.com/

Internet Movie Database
http://www.imdb.com/

LitLinks
http://www.bedfordstmartins.com/litlinks/

Timeline of Art History
http://www.metmuseum.org/toah/

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is&t is printed with soy inks on recycled paper, and can be recycled in MIT’s “mixed paper” bins.