News about information systems throughout MIT

I/S

Volume 16 • Number 2 November / December 2000

All Eyes on Napster: The Digital Copyright Controversy

• Joanne Straggas

Music has been called intellectual property's canary in the digital coal mine. The distribution of music over the Internet has caused intense debate about copyrights in cyberspace, and distributors of other types of content – such as books and movies – can expect to face similar controversy.

MP3 and Napster

By far the most popular format for digital music files is MP3. It compresses files of near CD-quality to about one-tenth of their original size, making it feasible to download and store them. Even users with 56K modems can transmit songs in MP3 format over the Internet in a few minutes, as opposed to two hours without compression.

Individuals can also "rip" MP3 files from their own CDs using inexpensive or free software, then enjoy these files in a variety of ways. They can listen to them on portable MP3 players or from their hard drives; send them via e-mail to other music fans; or upload them to the Internet for anyone to enjoy.

Napster, a peer-to-peer file sharing system, has greatly boosted the ease of distributing digital audio files. It provides advanced search capabilities, as well as direct hyperlinks to MP3 files housed on its users' computers. Millions of users have logged onto Napster, trading millions of sound recordings.

Copyright Concerns

Consumers have received the MP3 format and Napster with enthusiasm, and many independent bands, seeking fame and fortune, have welcomed the chance to distribute their music online. But traditional record companies have been hostile to the technology, at least as currently implemented. In their view, most music downloads via the Internet infringe their copyrights or those of the musicians they have under contract. (Copyright gives owners of a sound recording the exclusive right to distribute that recording.)

These record companies have sought to make illegal the technologies that enable sharing of music files, for free, over the Internet. The umbrella organization, Recording Industry Association of America (RIAA), has brought high-profile suits against MP3. com and Napster, alleging liability for their own or their clients' copyright infringement. According to RIAA, copyright holders have lost millions of dollars of revenue through music piracy. Others maintain that these claims of injury are entirely speculative. Many people who have downloaded music from the Internet say that they would not have bought the CD for the one song they wanted. Others say that after downloading a song, they decided to buy the CD.

RIAA v. Napster

The case that has received the most attention in the media and on college campuses is RIAA v. Napster. The

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Napster

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RIAA claims that "Napster launched a service that enables and facilitates the piracy of music on an unprecedented scale." The original RIAA companies involved in the suit were Bertelsmann AG, Time Warner, Sony, Universal Music Group, and EMI.

A decision on June 26, 2000 granted the record industry's request for a preliminary injunction. On July 28, an appellate court granted Napster an eleventh-hour stay, enabling the company to keep operating as before while its appeal was heard. On October 2, the U.S. Court of Appeals heard Napster's oral arguments; a decision is pending.

Later in October Napster came to an agreement with one of the record companies, media giant Bertelsmann. Together they will develop a fee-based service using Napster's peer-to-peer file sharing capabilities. Exactly what the business model will be is unclear. One possibility is to charge a monthly access fee. It remains to be seen whether users accustomed to exchanging files for free will agree to pay for songs and, if so, how much they will pay. Some users may choose to move to other free services such as Gnutella or Freenet.

The remaining record companies are still pursuing the lawsuit, claiming that the Bertelsmann/Napster alliance does nothing to address the millions of past acts of copyright infringement.

Precedents

The Napster case is being watched closely by Internet stakeholders and members of the legal and public policy communities. Yet it is not the first time a court has dealt with the issue of a new technology threatening an existing business model. The Supreme Court heard of the alleged threat of the VCR in Sony Corp. v. Universal Studios, Inc. in 1984. The Court determined that a technology "capable of substantial noninfringing uses" should not be banned. The issue was not whether most actual uses of the VCR were fair uses. The Court left it to Congress to draw the line between the rights of copyright holders and consumers in light of the new technology (as it had done with previous inventions such as the photocopying machine.)

On the music front, Congress passed the Audio Home Recording Act in 1992, leaving private, noncommercial home recording unregulated by copyright law. Will the Courts decide again, with Napster, that this is a matter for Congress?

Closer to Home: MIT's Policy

The digital copyright issue recently hit closer to home when MIT and over twenty other universities were asked by lawyers for rock band Metallica and rap artist Dr. Dre to restrict students' access to Napster. Professor James D. Bruce, Vice President for Information Systems, responded that

> *MIT has had a long history of providing its faculty, staff, and students with uncensored access to the Internet and its vast array of resources. As an educational institution providing its community of users with Internet access, we do not monitor or bar access to use of the Internet. This policy is consistent with MIT's educational mission and our deeply held values of academic freedom.*

MITnet Rules of Use prohibit the copying or misuse of copyrighted material. While IS does not monitor for infringements, when notified by the owner of copyrighted material (or someone authorized to act on their behalf) of a specific infringing activity, IS does investigate. If the claim is valid, immediate steps are taken to stop the infringement.

For more on copyright policy and Napster's impact, see Surf Sites on page 8.

View MIT Organization Charts Online

There are many ways of looking at an organization as complex as MIT. Now you can browse three different views, courtesy of a Web site from the MIT Communications Office at

`http://web.mit.edu/communications/orgchart/`

This site includes

- a typical organization chart diagramming reporting relationships of senior officers on the administrative and academic sides of the Institute;
- a text list of organizations arranged by reporting officer that shows additional tiers in reporting relationships;
- a chart that shows the membership of the Academic Council, which serves as the President's cabinet.

You can also locate information about labs, centers, programs and administrative services using an alphabetical listing that includes every role and entity mentioned in the site.

Printable Copies

The Reporting Relationships chart, which has vertical and horizontal views, has been saved in portable document format (PDF) for printing. To open and print a PDF file, you need the free Acrobat Reader from Adobe. A download link for the Reader is provided on the Printable charts page.

Feedback

The Communications Office worked closely with the Publishing Services Bureau and Web Communications Services to develop the online version of MIT's organization charts. The Web site is a working prototype, and feedback is welcome. Send your comments to <communications@ mit.edu>.

MIT Information Systems

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`http://web.mit.edu/is/newslink/`

Microsoft Caters to Macintosh Crowd with Office 2001

• Ginny Williams and Esther Yanow

Microsoft's Office 2001 for the Macintosh, released in October, comes in a plastic clamshell-like case with extra slots for storing other CDs. But naturally it's what's inside that counts: new versions of Word, Excel, and PowerPoint. There's also a new e-mail and personal information manager called Entourage.

The reviews are in and the news is good. Totally rewritten for the Macintosh, the Office 2001 suite is more stable than previous versions, offers many useful new features, and has tighter integration among applications.

It also works well within the MIT environment. The software is compatible with SAP reports from the Web, BrioQuery reports from the Data Warehouse, and administrative templates such as the Travel Voucher, Request for Payment, and Journal Voucher.

Microsoft spent a lot of time ensuring Office 2001's compatibility with earlier versions of Office, both Macintosh and Windows. You can even append Windows extensions to your files when you perform a Save As command. For the results of file compatibility testing by IS, go to

`http://web.mit.edu/swrt/office2001/compat.html`

System Requirements

Office 2001 requires a PowerPC Macintosh, and takes up lots of disk space and memory. For full system requirements, see the chart below.

New Features

The Project Gallery is the default starting point for Word, Excel, and PowerPoint, offering visual representations of a variety of templates. Instead of looking on your desktop or hard drive for the application you want, you can check the Project Gallery and double-click on the appropriate application or template. Your first impression may be that this feature is an unnecessary introduction to Office 2001. But try it, because it may grow on you. You can not only access an application from the Project Gallery but can also put a document of your own directly into it. (Go to the Category portion of the screen and click on Mytemplates, then drag the document to the appropriate place.) Since the Project Gallery is a startup option, you can turn it off at any time, application by application.

You can expand Word's formatting palette to access more options.

The Clipboard now stores up to twelve objects, and is shared across Microsoft Office applications.

A new floating palette combines formatting functions from toolbars, dialog boxes, and menus; you no longer have to search through different menus for formatting options. Depending on the type of document you're working on, the palette will change and display the appropriate tools.

In Word, Data Merge (formerly Mail Merge) makes it easy to produce mass mailings. All options now appear on a floating palette, rather than in a dialog box. You no longer have to go to the Tools menu and select Mail Merge three different times to do one task. Also, you can preview each letter before finishing the merge, helping to prevent mistakes.

Excel has a new List Manager that makes it easier to work with simple lists. As you enter information, Excel recognizes that the data could be a list and asks if you want to use List Manager. If you say yes, a built-in Wizard asks questions about the data. You have options to create headers, total lines, and rows instead of individual cells. This change makes it easier to sort, format, and print. If the list is longer than one page, headers appear and print at the top of each page.

PowerPoint now offers tri-pane views. You can see an individual slide, notes, and outline at the same time on one screen, making it easier to review and change information.

You can find out more about Office 2001, and even run AutoDemos of new features, by clicking on the What's New link at this Microsoft Web site:

`http://www.microsoft.com/mac/products/office/2001/`

Another way to learn about new features is to attend a free Office 2001 Demo. The next one will be held on January 29 from noon to 1pm in the N42 Demo Center.

Purchase and Support

Office 2001 is part of the Microsoft Select Program for departments and is available through NECX (see page 7). An academic license costs $43.88, while an upgrade costs $35.47. For personal purchases, the price is $185.22.

IS provides full support for Office 2001, except for Entourage, which is under review at this time. For a comprehensive overview of IS support, see the Product Support Summary at

`http://web.mit.edu/is/products/macsoft.html`

System Requirements	Comments
Mac OS 8.1 or later	Microsoft recommends Mac OS 8.5 or later.
• 32MB RAM with 1MB Virtual RAM for systems prior to 9.0 • 48MB RAM with 1MB Virtual RAM for Mac OS 9.0 and later	MIT's minimum requirement is 128MB. Note that Word alone takes 10MB.
• 160MB of hard disk space (about 40MB more than Office 98) for a drag install • 75MB for a minimum install	An additional 273MB is needed for the Value Pack, which supplies converters for Microsoft Works 4.0; Word 5.1, 6.1, and 97; and WordPerfect 5, among other tools.

IS Weighs in on the Use of Home Firewalls

• Jerry Isaacson

A growing number of MIT community members are signing up for high-bandwidth network services at home, via DSL or cable modem. These types of connections, often on all day, are vulnerable to break-in attempts. As a result, many subscribers to high-speed residential services wonder whether they should install a firewall to prevent access by unauthorized Internet users.

What Is a Firewall?

A properly designed and maintained firewall provides a barrier between the trusted local environment and the "hostile" world of the Internet. At corporations, firewalls often consist of dedicated computers and software, professionally managed and maintained around the clock.

MIT does not use firewalls for several reasons. First, for a firewall to be effective, *all* traffic between the local and Internet environments must pass through it. Just one connection bypassing the firewall negates its effectiveness. Further, firewalls don't fit well with the open environment of the Institute. For more on MIT's perspective, see "Firewalls and Network Security" at

`http://web.mit.edu/is/integration/past-seminars.html`

These slides are from a talk given by Jeff Schiller, MIT's network manager.

Home Firewalls

A home firewall is basically software. Once you install it on your home computer, you need to configure it to allow things that you want to happen and disallow those that you don't. However, this may not be as easy as it sounds, even using the default parameters built into the software. Sometimes the terminology is arcane – Should you allow an inbound ICMP request? Are UDPs good or bad? In addition, you may have to configure the firewall to handle requests for communications services, so you can access things like SAP, Kerberos, Netscape, and e-mail.

These are the kinds of decisions you have to make to configure a home firewall. If it isn't configured correctly, you may not be able to use the services or resources you need.

After configuring the firewall, you have to deal with the results. Every time the firewall identifies something suspicious, you get a warning or an alarm. Some may ask for your input, others just tell you that they have blocked access to MIT, or someplace else, for some reason.

If you feel prepared to maintain a home firewall, keep in mind that IS does not support them. If you buy one, you will need to go to the vendor for help. You will also need to install the latest updates from the vendor to ensure that the firewall remains effective.

Other Protection Options

If maintaining a home firewall sounds too problematic, there are other steps you can take to protect your home computer.

First, be sure that you have the latest version of the MIT-licensed anti-virus software for your platform. Current versions include detection for the more common attacks you might face. For Windows systems, protection involves VirusScan 4.5 with Service Pack 1, the latest virus engine, and weekly updates to the virus signature file, released on Thursdays. You can configure VirusScan to do the weekly updates automatically. Virex 6.1 for the Macintosh has monthly updates and can also be configured to download them automatically. For details on anti-virus software and how to keep it current, go to

`http://web.mit.edu/is/help/virus/`

Next, turn off file sharing. (On Windows machines, it's called File and Printer Sharing.) This is usually done through a control panel. Since the procedure varies from one operating system to the next, consult your computer's online help to find out how to do this.

Finally, eliminate the vulnerabilities that can lead to exposure in the first place. This is essential to minimize the risk to your data and to others who may become targets through your unknowing participation. Since most home attacks target Windows systems, it's critical for Windows users to keep up with Microsoft security patches. IS is working on a way to notify users when these patches are released, but it's still up to the individual user to install them.

This column presents announcements and news to help you make the most of information technology at MIT.

All About Eudora

An updater to Eudora 4.3.2 for Macintosh and Windows is available to the MIT community via network distribution. IS fully supports this version of the e-mail client.

To obtain the Eudora 4.3.2 updater, or for information on this version, go to

`http://web.mit.edu/is/help/eudora/`

Be aware that Eudora 4.0.2 needs to be on your computer before you can run the Eudora 4.3.2 updater.

The timeline for release of Eudora 5 to the MIT community has been moved out to January 2001. For a progress report, go to

`http://web.mit.edu/swrt/`

and click on the Eudora 5 link.

As of December 31, IS will no longer support Eudora 2.2. Support for Eudora 3.0.2 will end on June 30, 2001.

Desupport of Windows 95

As announced to IT Partners last spring, IS will not support Windows 95 after December 31, 2000. This decision was based on several factors:

- With each new release of Microsoft's Windows operating system, IS has to assess support requirements and determine a reasonable date to discontinue support for the least viable version of the operating system – in this case, Windows 95.
- Windows 95 has not been available as an off-the-shelf academic package since July 1999.
- Applications critical to the Institute run on later Windows operating systems.
- An IT Partners' poll endorsed the phase-out of support.

The current operating system (NT4 with an upgrade to Windows 2000) is available free to MIT faculty and staff, for use on MIT machines only. To register for licenses, go to

`http://web.mit.edu/is/products/vsls/mitnt/`

If you have questions about requesting licenses, contact Angela Blossom at x8-9519 or <ablossom@mit.edu>.

Tips for Choosing a Windows Laptop Computer

• Kathleen Moriarty and Jonathan Hunt

If you're in the market for a Windows laptop (notebook) computer, you may find the choices overwhelming. However, focusing on the basic types of laptops and their distinguishing features can help narrow your choices.

Laptops come in three basic models: high-end, mid-range, and ultralight. If you're buying a laptop to replace your desktop computer, focus on a high-end model. These have a large screen, fast processor, and maximum storage capacity, as well as expansion capabilities such as PCMCIA slots and connectors. Laptops in this category weigh about seven or eight pounds, and include internal media devices such as CD-ROM and diskette drives. The bays for these devices may be modular, so that you can swap the devices in and out.

A mid-range model may be a good bet if you are cost-conscious and willing to compromise a bit on speed at one end and portability on the other. Mid-range models weigh a couple of pounds less than high-end models: the trade-off is a screen size that's an inch or so smaller, as measured on the diagonal. Mid-range models may be slower than high-end models. Internal or modular media devices are common, although there may be fewer options than on high-end models.

Ultralights round out the three types of laptops. They tend to have slower processors and smaller displays and keyboards. Expansion capabilities and connectors may be limited and media devices are usually external. The main advantage is portability – these laptops can weigh as little as three pounds. You may not want to rely exclusively on a machine this size, but they are ideal to bring to meetings.

Thinking It Through

Before you decide on a type of laptop, determine which features most closely match your requirements, especially in the areas of weight and portability, screen size, and media devices.

• *Weight and portability:* Are you likely to carry the laptop from the car in the morning, have it on your desk all day, and take it home at night?

A Dell Latitude laptop

Or will you carry it around campus or take it on trips? It's much easier to travel with a laptop that weighs less than five pounds, though that usually means it will have a detachable CD-ROM drive and a smaller monitor.

• *Screen size and resolution:* A 15.1" display is very nice, but you pay for it in extra pounds. On the other hand, a 12.1" screen may limit what you can see. Most systems offer at least 1024x768 True Color; some high-end laptops have up to 1600x1200 True Color.

• *Use of media devices:* If you use a CD-ROM or other media device once a day or more, you will probably want to have it with you either as a permanent internal device or as a modular bay.

Cost, of course, is an issue too. But saving a few dollars by getting a slower processor and less RAM may not make sense, especially if you end up needing to replace or upgrade the machine in less than two years. Work up from these minimum specifications to what you can afford:

- 500MHz Pentium III processor
- 256MB of RAM
- 10GB hard drive

Models from Dell

IS recommends Dell Latitude laptops for use at MIT. Dell recently announced two new Latitude models, the C800 and C600 – good choices for a high-end and mid-range laptop, respectively. (More on this shortly.)

The C800 and C600 have some new features in common. Support for mini PCI cards allows for an integrated 56K modem and Ethernet capabilities. An integrated antenna supports optional wireless Ethernet cards, which are expected to be available early next year. SoundBlaster audio includes built-in stereo speakers and microphone. Both models feature Dell's DualPoint technology, which combines a trackpad and a trackstick pointing device.

High-End Recommendation: C800

The Dell C800 is ideal for replacing a desktop computer. It's powered by an 850MHz Pentium III processor, and comes with up to 512MB of RAM and 10 to 32GB of hard disk storage. It has a 15" display and a fixed CD/DVD/CD-RW drive option, plus a modular bay for diskettes, Zip disks, or other devices. This machine's starting weight is 7.2 pounds, and it is 1.79" thick.

Mid-Range Model: C600

IS recommends the Dell C600 as a mid-range laptop. It has a Pentium III processor in speeds of 700, 750, or 850 MHz, and can support up to 512MB of RAM. Storage capacity ranges from 6 to 20 GB. It comes with a 14.1" display, and a modular bay for media devices. The machine's starting weight is 4.9 pounds, and it is 1.4" thick.

Ultralight Choice

If you plan to buy an ultralight laptop, check out the Dell Latitude LS with a 12.1" display, 500MHz Pentium III processor, and external CD, DVD, CD-RW, or diskette drive. The starting weight is just 3.5 pounds, and it's a mere 1" thick.

Case and Battery

When buying a laptop, get a good case to carry it in. Styles range from airplane bags with wheels, to briefcase styles, to computer backpacks made for hiking across the urban jungle. In addition to selecting a style that works for you, be sure that the carrying case is appropriate to your body size. If you opt for a backpack, look for straps that are wide and padded. And try on different carrying cases if you can. The right case can make commuting with your laptop a lot easier and safer.

Also consider buying an extra battery and AC adapter. Having an AC adapter at home and in the office eliminates some weight as you ferry your laptop back and forth.

Purchase

You can buy Dell Latitude laptops through the NECX catalog at

`http://web.mit.edu/ecat/necx/`

NECX also sells carrying cases, batteries, and AC adapters.

For presales help in choosing a Latitude model, contact the MCC at x3-7686 or <mcc@mit.edu>.

This column presents answers to frequently asked technology questions. For more Q&As, check the IS Stock Answers database at

`http://hdstock.mit.edu/stockanswers/`

Q I'm using a Macintosh off campus and connecting using a dialup Internet service provider. Sometimes my connection is slow or unreliable. What can I do that may help?

A The recently released Apple Modem Updater 2.0 addresses this problem. It installs version 2.3 of Conexant firmware – which has the latest versions of the V.90 and K56flex protocols – in your internal modem.

According to Apple, this firmware incorporates several fixes to improve the modem's compatibility, stability, and performance. The most significant fix corrects a problem with version 2.2 of the firmware, which would either fail to connect or connect only at speeds in the V.34 range (below 33,600 bits per second). Look under the Network Overview section of the Apple System Profiler to see what version of firmware your modem uses.

The new firmware also improves modem throughput, a measure of how quickly data is transferred from one modem to another. This is different from the connect speed that's reported when you connect to an Internet service provider. Apple says that after the upgrade, the reported connect speed may be slower than before, but the throughput will be at least as good as before and often better.

The bottom line is that the firmware upgrade should make your modem connections faster with less dropped connections. In a check of Macintosh Web sites, most users report positive experiences with the Apple Modem Updater 2.0. While there have been some problems, overall this update has made modem connections much more reliable for most users.

You can get the Apple Modem Updater 2.0 from Apple's Web site at

`http://asu.info.apple.com/swupdates.nsf/artnum/n11859`

This updater supports the internal modem that came with the PowerBook G3 series, iBooks, iMacs, and Power Macintosh G3s (blue-and-white) and G4s (PCI, AGP, and Cube). It's compatible with any version of the Mac OS that may be on these machines.

Note: This updater can take up to five minutes to complete. Don't cancel the installation process once you start, since this could damage the modem.

Hot Topics, Cold Days: IS Hosts a Blizzard of IAP Events

• Jeanne Cavanaugh

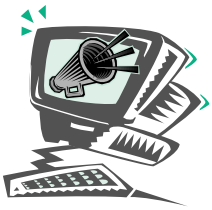
If you're curious about what's new on the computing scene, but can't find the time to keep up, short sessions during Independent Activities Period (IAP) may be just the ticket. This time around, Information Systems is sponsoring over 70 separate events. You can view the entire listing of IS sessions on the IAP Web site at

`http://websis.mit.edu/iap/nsis.html`

The IS events highlighted below are open to a general audience and don't require preregistration. They are listed in chronological order.

Legal Issues in Cyberspace
Part I: Intellectual Property
Jan. 9, noon—1pm, Room 2-105
Part II: Privacy
Jan. 11, noon—1pm, Room 2-105

Advances in information technology are forcing us to reexamine many of our current laws. This two-part series focuses on the more controversial areas of intellectual property and privacy. You are invited to join in one or both of these discussion groups.



Talk to Your PC: Voice Recognition Software for the PC
Jan 9, 2–3pm, Room 3-133

Staff from the ATIC Lab discuss the state of voice recognition software today and review hardware requirements. Come see the demo of the continuous voice recognition package, Dragon NaturallySpeaking, and get answers to your questions.

High- and Low-Tech Strategies for Individuals with Learning Disabilities and Attention Deficit Disorder
Jan 16, 2—3pm, Room 3-133

Presenters from the MIT ATIC Lab, MIT Disabilities Services Office, and Brain and Cognitive Sciences show effective ways to get work done, improve comprehension of materials, and stay organized. Some of the devices reviewed include the Palm Pilot, Kurzweil 3000 scanning and reading software, the Alpha Smart note-taker, Inspiration outlining software, and multisensor approaches to reading.

Running Linux on a Macintosh
Jan. 17, 1:30–3:30pm, N42 Demo Center

See representatives from Apple Computer install and run Linux on a PowerMacintosh G4. There's a bonus Linux CD for all who attend.

MIT Unwired
Jan. 17, 2–3pm, Room 2-105

MIT is in the process of installing wireless access to MITnet in several classrooms, libraries, and common spaces. This talk discusses the project, including its goals, progress to date, and various issues surrounding the use of wireless networking at MIT.

ATIC Lab Open House
Jan 24, 1–4pm, Room 11-103

Come to the ATIC Lab to learn about alternative technologies. At this open house you can try out alternative keyboards and mice, and software for magnification, scanning and reading, word prediction, and Braille translation. You can also see demonstrations of voice recognition and screen reading software.

Events Calendar Demo
Jan. 30, noon—1pm, N42 Demo Center

Looking for a way to reach a large audience for your upcoming activity? Come to this demo and learn how to post your group's events on the MIT Events Calendar at

`http://events.mit.edu/`

MIT Joins Microsoft's Select Licensing Program

• Theresa Regan

On behalf of MIT, Information Systems recently joined Microsoft's Select Licensing Program. Participation in this program allows MIT departments, labs, and centers to buy Microsoft products at steep discounts. The program is offered through MIT's preferred partner, NECX.

Information Systems has contracted with Microsoft for two product lines:

- Application Pool (Microsoft Office, Microsoft Project, etc.)
- Server Pool

Note that Microsoft Select Licensing discounts are available for departmental purchases only, not personal purchases. Departmental orders placed via NECX are entered automatically into the SAP financial system.

If you are a staff member of EECS or Mechanical Engineering, or a staff member or student at the Sloan School, contact your departmental administrator. You may be entitled to receive Microsoft software at no cost through separate agreements that those departments hold with Microsoft.

Licenses and Media

When you order software through the program, you can choose Microsoft Select Media and/or Licenses. The media is a CD with the installer for the program, while the licenses confer a "right-to-use."

A department can order one CD and one or more licenses, and use that one CD to install all of the licensed copies of the program. More licenses can be purchased as needed. NECX sends a confirmation number for each license – usually within three to five business days of placing the order. Keep these confirmation numbers for your records.

To install the licenses for a given product, use the installation key on the back of the CD. This practice differs from that for Microsoft software bought off the shelf, where the installation key can only be used on one computer.

The software in the Select program does not come with user manuals. Microsoft products do include built-in help, and you can usually buy third-party books on the software. If you want the manuals, you can place a special order for them through NECX. Contact the MIT Computer Connection (MCC) for more information.

More on Ordering

For instructions on how to get to the Microsoft Select products page in the NECX online catalog, go to

`http://web.mit.edu/is/products/vsls/`

and click on the Microsoft Select Licensing link.

The NECX page lists the commonly used products from the two available pools. If an application or server product that you want to order is not listed, send an e-mail inquiry to <mcc@mit.edu>. An MCC consultant will research the missing product and add it to MIT's Microsoft Select License list as quickly as possible. To assist with these potential product additions, include specifics (platform, application product name, version) with your e-mail inquiry.

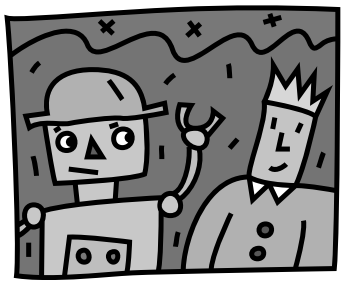
If you have questions about the Microsoft Select Licensing program, contact the MCC at <mcc@mit.edu> or x3-7686.

Robo sapiens: A Book in Search of a New Species

• Lee Ridgway

The cover definitely catches the eye: a humanoid robot, child-like, aglow with translucent skin, red lips, teeth, and wires trailing behind. This is just one of dozens of photos in *Robo sapiens*, a book that wants to startle us into awareness of robotics research around the world. Photographer Peter Menzel and journalist Faith D'Aluisio visited over 100 projects, in labs large and small, corporate and non-profit. Their stunning book showcases the latest robotic creations while raising questions about the future relationship between robots and humans.

At one extreme is Kevin Warwick, Professor of Cybernetics at the University of Reading (England). Warwick, involved in some of the most boundary-pushing research, says "The destruction of the human race as we know it seems inevitable." A different but no less extreme view is presented by Hans Moravec, robotics and AI researcher at Carnegie Mellon. He believes that robot intelligence will surpass human intelligence by 2050, but sees robots as the offspring of humankind: instead of usurping us, we will become them.



For now, compared to humans – or even insects – robots are primitive: they still depend on human programming. This is not to say that there aren't useful machines out there, such as factory-floor robots or robots that roam hospital corridors transporting food, drugs, or waste. But mostly, they interact as adjuncts to people, not on their own.

Dive In

Readers can dip into *Robo sapiens* at random, since each article about a project is self-contained. In addition to "Robo Specs," there are photos of the machine and of the researchers at work (or play), and an interview between D'Aluisio and a key researcher. Notes by Menzel give his impressions of a project and its people. His comments are candid, sometimes whimsical, and add just the right touch to bring us back to reality from the often surreal world of the robots.

A Different Path

Most of the projects in *Robo sapiens* represent mainstream paths of research, where digital technology reigns. But Mark Tilden, a physicist at Los Alamos National Laboratory, has chosen a low-tech route. He builds small, battery-powered, walking "Unibugs" that use feedback from analog circuits to guide their motion. These autonomous Unibugs run into obstacles and learn how to get around them gracefully – sort of like we do.

More Information

For a glimpse into the world of *Robo sapiens*, or to order the book, go to the MIT Press site at

`http://robosapiens.mit.edu/`

Getting Help

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.)

For a complete list of services offered by Information Systems, see

`http://web.mit.edu/is/services/`

For help with...	Dial...	Or send a message to...
Administrative applications	2-1177	business-help@mit.edu
Athena Computing Environment	3-4435	olc@mit.edu
Computer and printer repairs	3-0815	hardserv@mit.edu
Computer pre-sales consulting	3-7686	mcc@mit.edu
Disabilities and computing	3-7808	atic@mit.edu
Macintosh computers	3-1101	mac-help@mit.edu
PC computers	3-1102	pc-help@mit.edu
Telephone repairs	3-4357	5help@mit.edu
UNIX/VMS (by subscription)	3-1103	unix-vms-help@mit.edu
Voice mail	3-3677	vmail@mit.edu

Surf Sites: The Impact of Napster

Peer-to-peer sharing of MP3 files has taken the Internet world by storm, as evidenced by Napster's immense popularity (see lead article on pp. 1–2) and the legal response by the recording industry. To learn more about the technology behind Napster, as well as the issues behind the lawsuits, check the Web sites listed on the right.

To learn more about copyright in general, and MIT's policies and procedures, go to Copyright Central at

`http://web.mit.edu/copyright/`

Computerworld: Focus on Napster
`http://www.computerworld.com/resources/napster/`

MP3 Rocks the Web: A Wired News Collection
`http://www.wired.com/news/mp3/`

Napster/Bertelsmann Q&A
`http://napster.com/pressroom/qanda.html`

The Power of Peer-to-Peer
`http://www.informationweek.com/801/peer.htm`

Recording Industry Association of America: Napster Lawsuit Q&A
`http://www.riaa.com//Napster.cfm`

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