Connect: Academic Computing and Networking at NYU

Connect is edited and published by New York University's Academic Computing Facility (ACF). Its scope includes information about computing and networking activities at NYU's various schools, departments, and administrative units, and outside developments of interest to the NYU community.

Copies of Connect are mailed to university faculty and staff, and are also available from the ACF's Information Services Office (room 312, Warren Weaver Hall), at the ACF Help Center (second floor, Warren Weaver Hall), and at the ACF computer labs (listed inside the back cover). Students holding ACF individual computer accounts are included automatically in the mailing list.

Selected articles from this publication have been made available on the NYU CWIS, starting with the March 1993 issue. To locate these articles, choose Academic Computing and Networking Resources from the main CWIS menu, then select Academic Computing Facility, then Publications and Reference Collections, and finally, Connect: Academic Computing and Networking at NYU (the newsletter). Starting with the summer 1995 issue, much of the material will also be available on the World-Wide Web, at the URL http://www.nyu.edu/acf/pubs/connect.

We welcome your comments and suggestions about the articles in this issue, and about articles for future issues. Contributions are invited for consideration by the editor; please call 998-3038 or for more information send e-mail to me at the address given here. Articles are written by members of the ACF staff, unless otherwise indicated.

Opinions expressed in the articles in this publication are those of the authors and not necessarily those of the Academic Computing Facility or of New York University.

Below many of the authors' bylines are electronic mail (e-mail) addresses. If you do not use e-mail but would like to, call the ACF HelpLine at 998-3333 for information about opening an appropriate account.

This issue was prepared on Apple Macintosh Quadra and IIci computers, using Aldus PageMaker, Microsoft Word, Adobe Type Manager, Adobe Photoshop, and Quark XPress, among other programs. Fonts used in this issue are Palatino for the text and Gill Sans bold for headlines, along with Zapf Dingbats for special effects. Camera-ready copy of text and diagrams was produced using a 600-dpi Hewlett-Packard 4si printer at the ACF; Echo Graphics prepared the halftones from electronic files, and printed and bound the publication.
Networking and the Internet continue to increase in public visibility. Every day brings new articles in newspapers and magazines regarding new uses of the Internet and the World-Wide Web. Advertisements increasingly contain Web addresses inviting interested customers to use them to learn more. The Wall Street Journal published two special Internet advertising editions over the summer. Fledgling companies involved in networking that have yet to turn a profit have initial public offerings that value them at hundreds of millions of dollars. What was once an enterprise in the domain of research and education has now exploded to encompass almost all spheres of human activity. Cyberspace is being discovered and colonized rapidly.

The World-Wide Web and its client browsers, primarily Mosaic and Netscape Navigator, have been largely responsible for this swelling of demand. The Web, with its easy-to-use front ends and its power to navigate swiftly through the geographical world as well as the world of content has generated millions of new network users. Many network neophytes make little or no distinction between the Internet and the Web; they can see the Web and explore its contents, and can operate at its level while knowing little about its technical underpinnings.

This phenomenon is also occurring at NYU. During the last academic year, we connected about 2,000 new computers to NYU-NET. The demand for dial-up access to computer and network resources has continued to build, to the point where we will soon be adding about a hundred high-speed IP (Internet Protocol) modems to our communications facility. Instructors have become interested in developing and publishing course material on the NYU Web, and some good material is now available. A group of enthusiastic undergraduates has formed the Computer Advocacy Club, dedicated to spreading knowledge and use of the network and its resources throughout NYU. Students are pressing to be able to create and store their personal pages on the Web at NYU.

All of this activity presents new challenges and opportunities, as well as unprecedented pressure on available resources.

The Role of Networks at NYU

It is in part this pressure on resources that causes us to ask, "What is the appropriate role of the Internet and the Web in the activities of NYU, and how shall we support those activities?" Clearly many of their potential uses are directly related to the academic effort, whether for supporting research, delivering instructional content, or supporting academic interaction. But much of the use of the Web, and also of other network-level applications, is not specifically related to our roles as faculty, students, and staff at NYU, but is rather related to our personal lives, our hobbies, and our curiosity about the world in general. Like any good library, from local to Congressional, the Web offers an incredibly broad range of materials.

The Web gives us a powerful tool to satisfy that curiosity, a way to traverse a gigantic information

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George Sadowsky is director of the Academic Computing Facility.
space where we can take a journey of free association, clicking on links at will, surfing through Cyberspace. The Web can arouse curiosity almost instantly, and has the potential to satisfy it almost as quickly. But it can also divert attention quickly and easily from an initial goal; it is seductive in its approach and addictive in its appeal.

As time passes and much of the world’s knowledge is made accessible through vehicles such as the Web and its inevitable successors, using this vast and multifaceted content for research and instruction can lead to significant and profound understanding of many areas of knowledge. It’s equally true that, approached with no objective in mind, it can lead to great breadth of shallow knowledge, an electronically induced dilettantism not much better than the torpor induced by TV channel-surfing.

The act of browsing and the satisfying of curiosity are closely related to learning. In a previous age, the equivalent of surfing the Web might well have been browsing in the library or the bookstore, hoping that a book or journal would serendipitously attract our attention and provide something really interesting or useful. More focused browsers who grew up following encyclopedia cross-references from volume to volume, building their store of knowledge as they went, will feel right at home on the Web. Such browsing can lead to new learning and mastery of knowledge. Such browsing can have beneficial effects. I myself discovered a book by accident in the Trinity College library stacks that later formed the basis for my Ph.D. dissertation. Similarly, people may well discover items of information on the Web that will influence their personal and professional lives.

NYU’s Web Resource

NYU is in the process of defining and creating its own Web space. An official core body of information for the University will be structured and managed by a task force under the leadership of Senior Vice-President David Finney. Policies on preparing and linking Web pages are being formulated. In addition, schools, departments, centers, service organizations — essentially all units of the University — will have the opportunity to define and implement pages that relate to their functions and activities. Students will be able to define a presence on the Web, and a moderate amount of computer space will be provided for this. This policy reflects the belief that publication is important in academic life, and the Web is fast becoming an acceptable and easily accessible publications medium.

We are also in the process of establishing criteria for access to the Web. On campus, anyone with an NYU-NET connection can obtain a browser program and access many Internet services, including the Web. As wiring is updated in residence halls to provide data connectivity to occupants, there will be additional points of network connectivity that can be exploited by anyone living there and having a personal computer.

Dialing in to the Internet with an ACF DIAL account from outside the University continues to be a choke point, because of the high demand and the equally high costs of that demand. We are formulating policies that will allocate the limited port capacity we have among persons with a legitimate academic need for access.

There is no doubt that in the long run we are just beginning a major transformation of how we store knowledge, from analog to digital, and from physical to electronic. As this transformation proceeds, the information resources on the network will continue to grow, and access to and use of that part of Cyberspace will be an essential part of any meaningful education. In that future time, it is likely that the electronic data utility will join heating, plumbing, and electricity as an integral part of residential and office infrastructure. In the interim, as a University we need both to expand our network infrastructure, as we are in the process of doing with NYU-NET II, and to ensure that we employ network resources and the Web in an effective manner for legitimate academic activities.

ACF HelpLine Q&A

Q: A friend sent me e-mail over the summer. I can’t find it. What happened to it?

A: Because student accounts were closed as of June 15, the e-mail message was “returned to sender.”

I suggest that you apply for a new NYU-Internet account with the ACF. Then be sure to let your friends and correspondents know about your new e-mail address.

— L. Barnett

Call the ACF HelpLine at 998-3333

2 Fall 1995 Connect: Academic Computing and Networking at NYU
NYU on the World-Wide Web

NYU Web: The Global University Goes World-Wide Web

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The World-Wide Web is here. Over the last year or so, we've all been seeing more and more media play about the Web phenomenon. Some view a lot of it as hype, but beneath the hype is the reality that here, finally, is a computer-network environment that almost anyone can use productively and enjoy using. Advances in several areas — networking, multimedia, and computing power — have converged to make this possible.

And NYU is moving to take full advantage of the Web. In a joint effort with the Academic Computing Facility, the Office of Advertising and Publications, part of the Division of Enrollment Services, has been developing the NYU Web. The NYU Web is an official publication of New York University — an evolving publication without end — and it is the gateway to NYU for the global network community.

There are many ways NYU Web can be used — teachers can post syllabi and readings; class members can communicate with their teachers and with each other; they can collaborate in research; share their findings; and disseminate their conclusions; researchers can find data and publish papers; administrators can post forms that others can fill in online. Perhaps most exciting, NYU is now able to create an official presence for itself on the Internet.

Let's look at some of these uses.

New NYU Home Page

The NYU World-Wide Web site has been given a complete facelift, launching NYU Web. The university has had an experimental Web site for about a year now, but these new pages now mark the beginning of NYU Web.

NYU Web is the university's third-generation campus information service. While it does not replace NYU CWIS, the two-year-old Gopher-based system, all the information in the Gopher world is accessible through NYU Web. Since the World-Wide Web allows pictures, sounds, and movies to be incorporated and provides an interface to other services, including Gopher, library catalogs, and electronic phone books — even the potential to access disparate databases — NYU Web is expected to grow rapidly.

Academic Uses of the Web

A number of classes at NYU have already used the World-Wide Web for distribution of class curriculum materials, for access to teaching materials, and for student projects. One graduate student used a Web page to do research on the brain. Her Brain Preference Indicator Test provided a fill-out form for self-testers; she reported collecting so much data in just a few weeks' time that she had to remove the pages. Another example of a class using the Web is Dean Nagle's paperless class on Garbage in Gotham (see page 17).

Now, Reach the Web from Public Locations

Netscape is now available from public locations and machines, including those at ACF labs. Using a program called a proxy server from Netscape Communications, the ACF has been able to control unauthenticated access to the Internet, while allowing
Windows on NYU: A design in progress. This was one of several versions of the NYU Web home page being developed by Advertising and Publications this summer as Connect went to press.

those working at the lab to use the popular graphical browser.

A proxy server accepts requests and passes them on to the real server, if they meet some set of pre-configured criteria. In the case of the Web proxy server here at NYU, it prevents general access to the Internet, but allows Web browsing. If you would like to make Netscape (or other graphical Web browser software) available on a publicly accessible machine in your area, you should contact webmaster@nyu.edu for instructions on configuring the software to use the proxy server.

Electronic Phone Book on the Web

The New York University Electronic Directory is now available on NYU Web. To use the directory, open the URL

http://www.nyu.edu/directory/lookup/

Using the default server (ph.nyu.edu), you can access the NYU staff directory, or you can switch to ph.med.nyu.edu to look up someone at the NYU Medical Center.

You need to fill in at least one of three blanks — name, e-mail, or phone. Finally, click on (or select) Submit Query and you will have the result of your search almost immediately.

NYU Units Can Publish Web Pages

If you are interested in contributing information for your department or unit to NYU Web, contact the ACF via e-mail to

webmaster@nyu.edu

You may be referred to Advertising and Publications, the dean of your school, the administrative head of your organization, or some other appropriate coordinator of Web information in your area. In some cases you will be able to proceed directly to setting up Web pages for your unit.

You will need to obtain a special account in which you will put your pages. The procedures to do so are in the NYU Web Guide (see below). After your account is active, you will receive interoffice mail with your username and password. Next, your URL will be set up.

After you create your pages, and are ready to go “live,” a link will be made from NYU Web to your pages. As an NYU Web contributor, you will be responsible for keeping the information on your Web pages up to date.

NYU Web Guide to Making Web Pages

The first thing you should do if you are considering contributing information to NYU Web is obtain the NYU Web Guide. It is available from the Academic Computing Facility, at any of the ACF labs, and online as a hypertext document at

http://www.nyu.edu/webguide/
or from your NYU-Internet Pages menu (see “New NYU-Internet Menu,” below).

In the guide, you will find pointers to information about the Internet and the World-Wide Web, a general introduction to learning HTML and Webpage design, and specific procedures to follow to become an NYU Web contributor.

Also in the guide are instructions on how to do an image map, advice about checking to make sure your HTML is correct, guidelines about images and footers, policies governing the use of NYU Web, and more.

HTML Syntax Checker

How do you know if the HTML pages you have created have the correct syntax? The ACF has
obtained a free copy of the HTML syntax-checking software from Hal Software Systems. You'll find it at http://www.nyu.edu/pages/checker/
The checker takes the URL for the page you’re creating, and reports any errors in the HTML syntax — or, if your work is correct, it gives you a check mark!
Before you type in the URL of the pages you want checked, you can select the level of checking you want. Since HTML is an evolving standard, and since most Web browsers will tolerate a certain amount of misuse of the HTML language, we don’t recommend checking under the “strict” option. At this time, we recommend using “level 2.”

New NYU-Internet Menu

The ACF’s NYU-Internet system has been adapted to reflect the growing interest in the World-Wide Web. Version 2.0’s menus feature a number of new options.

On the main menu, you will notice that option 2, which formerly led to the NYU CWIS, now leads to NYU Web. You can still go to the NYU CWIS; the option has been moved down one level to the Network menu. Since more and more organizations are picking the World-Wide Web as their main way to deliver online information, and since the information in the Gopher-based CWIS is available through the Web, it seems logical to make it faster to reach NYU Web.

The other new item on the main menu is a link to the Pages menu. Once there, you can create a personal Web page, view, edit, or delete your page, or consult the NYU Web Guide. In the future, more

(continued on page 8)

New Media Center Web Gallery

The NYU Web Gallery includes exhibits by NYU students, faculty, and related arts organizations. The Web Gallery provides NYU artists with a way to present their work on the Internet’s World-Wide Web, and can include text, stills, sound, video, and animations. Works shown can be scanned from traditional media, or created directly in a digital form.

The Gallery went online in the late spring of 1995 with student exhibits from the Tisch School of the Arts and the School of Education. Included are exhibits of work in photography, fine art, interactive telecommunications, and dance. Other exhibits — computer animation, film, and additional fine art and photography work — are planned.

The Web Gallery, whose Web address is http://www.nyu.edu/nmc/ is managed by the ACF Arts Technology Group as part of its support for NYU’s participation in the New Media Center program. We have created a number of templates for display formats, and have sponsored workshops, so that artists with even the most basic computer skills to create exhibits of their work.

Faculty members from programs in the arts interested in exhibiting student or personal work on the World-Wide Web can contact me by phone at 998-3041 or by e-mail at the address below.

— Philip Galanter
galanter@nyu.edu

What Does a URL Do on the Web?

There are basically two ways to navigate on the World-Wide Web. The first is to follow links from one page to another; the other is to use URLs (Universal Resource Locators; see the “Alphabet Soup” box for more details).

If you follow links, you simply select a word or image that looks like a promising lead (you select it in a graphical browser like Netscape by pointing with a mouse cursor and clicking the mouse; with a text-based browser like Lynx, you tab to the phrase that indicates a link and select it with the Return key). Your action tells the client program running on the computer at your end to follow the link; it reads the URL and makes the connection to the new location, whereupon the new page is sent to your computer and displayed for you. Unless you look behind the scenes, you may not have any idea where the new location is — and you don’t need to.

It’s sometimes faster to use the URLs more directly, by typing them in at the appropriate place in the browser — at the command line, or at a menu item such as File/Open Location. The browser then makes the connection, and displays the designated page.

In either case, you can create a bookmark when you get to the location; the bookmark saves the title of the page and the URL in your computer’s files, so you can quickly return to the same location when you want to.
Where Are We Now, Toto? On the Internet? On the Web? In Gopherspace? Or Are We Back in Oz?

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Here we are, in the middle of the Information Age, zipping about on the Information Superhighway, feeling a bit ill-informed. Or are we on the Web? Or the Internet? What are these networks we keep hearing about?

Here’s what they look like from the vantage point of the nontechnical editor’s desk. Some of the networks are more or less real, and some are definitely less real. Let’s start with the Internet.

The Internet

The Internet is more or less real. It is a name applied to all of the interconnected networks in the world (including NYU-NET), and theoretically, if you are sitting at a computer connected to the Internet, you can communicate with any other connected computer. This is possible largely because people around the world have agreed to use a set of conventions called TCP/IP (Transport Control Protocol, Internet Protocol) for transferring information over the connected lines.

The physical structure of the Internet is fairly amorphous. Until recently, the National Science Foundation financed a backbone of several major high-speed lines that crossed the US, which carried a major portion of the Internet traffic, but below that level the net was always rather messy; since NSF support was withdrawn early this year, the picture has become even more complex. The major high-speed lines, and many of the smaller ones, are leased from companies that provide long-distance telephone service; local networks like NYU-NET tend to be separate sets of lines, individually administered. About all that can be said is that there are actual wires and fibers out there, busily carrying pulses of electricity and light (and air carrying microwaves, as well), and that if the pulses follow the right protocols, that’s the Internet.

But neither you nor your computer has to know much about the topology; when you send e-mail to your friend on the West Coast, there are hundreds of routes the message can take — in fact, different phrases of your message may take different routes before being reunited at your friend’s computer. The fact that there are many possible routes makes the system more reliable, since it doesn’t depend on any specific intermediate points.

Exchanging Electronic Files

E-mail is only one of the uses of the Internet, of course. Sending and receiving information in longer electronic files is another use — the main one, of network volume. There are several ways this can be done; the most important — again, in terms of volume — are FTP, Gopher, and World-Wide Web. Let’s take them in that order, which is the order in which they gained acceptance and use.

All three are client-server systems, in which a given host computer houses a certain set of files and makes them available with a server program, and a matching client program running on any other computer can bring the files to that second computer. And each system is governed by protocols that assure the system will work.

File Transfer Protocol

FTP (File Transfer Protocol) is by now an old standby that has allowed thousands of researchers to transfer millions of files over the Internet. As with e-mail messages, a given file is packaged in small packets that wend their way separately from computer A to computer B, where they are reassembled to form a duplicate of the original file.

The most popular manifestation of this protocol is Anonymous FTP, which allows a user at the client computer to log onto a distant host computer anonymously for certain limited purposes: to read the directories of available files, and to download any of the files to the client computer. The files themselves don’t have to be specially formatted in order to be transmitted via FTP.

This system works well, but it is not very easy to navigate to the host FTP site. Various programs, such as Fetch and WinQVT/Net, make the procedure simpler, but you still have to know the specific address of the host computer and the files on it.

Gopher

The Gopher protocol and programs, developed at the University of Minnesota, made the whole process easier for the user. For the past two years, the NYU CWIS (Campus-Wide Information System) has used Gopher hosts to make a wide variety of information available to people with ACF accounts — and indeed, to anyone around the world with an Internet connection and a Gopher client program. The user sees a menu, selects an item, and is presented either with another menu or with a document that can be read on screen or downloaded to the user’s account or computer. During this process, the user is unaware that the client software may be making connec-
tions with a variety of different hosts around the world—all of that navigating is done behind the scenes.

The navigation is easy because when you select an item on a menu—by typing a number or clicking a mouse cursor, depending on the particular client software you’re using—the program does the work of making the connection to the new file, and if necessary to a new host computer.

The interface is simple, even bare-bones. It is designed to work on modest computers, and it transmits text files that are presented in a character-based mode. Because text files are inherently short (a novel takes about as many bits to transmit as a page-sized picture), the system is swift—as swift as the network connections will allow. The disadvantage is that anything to be made available via Gopher must be reduced to the simplest ASCII text, and will be displayed pretty much that way.

But the ability to navigate so easily is a tremendous advantage. Users began to experience the territory as a separate realm of the Internet called Gopherspace, where a separate set of rules made it easier to find and use information. Gopherspace was (and is) a virtual network, a new almost-equal-opportunity society defined by the programs that make the connections and purvey the information.

The World-Wide Web

The World-Wide Web (or Web, or WWW, or W3), is another virtual network with no separate physical identity. It is made up of the computers on the Internet that use a more complex set of conventions embodied in HTTP (Hypertext Transport Protocol); to talk to each other, the computers run client-server software that embodies the protocols.

The Web and its protocols were developed about the same time as Gopher, but in a different community and with different objectives. The international community of particle physicists centered on CERN in Switzerland; such scientists had access to the largest and most advanced computers, and needed to exchange and organize information. As with Gopher, navigation on the Web is all done behind the scenes by the client programs, called browsers. Unlike Gopher, most browsers can display images in a graphical environment, though the original hypertext browsers were text-based, and were actually inferior to Gopher.

Lynx is a more modern text-based browser from the University of Kansas that is included in the NYU-Internet account. It will not display images, though you can download image files for later viewing with other software on your own computer. It actually runs on the ACF machines called is, is2, etc., rather than on your own computer, which acts as a terminal only.

What really changed everything on the Web was the release of Mosaic. Graphical browsers such as Mosaic

Alphabet Soup: A Guide to Web Terms

What do all those acronyms mean? Do I really need to know? Not most of them, but some...

**FTP** (File Transfer Protocol): A set of conventions and programs allowing a user to retrieve files from a distant host computer. **Anonymous FTP** is a procedure that allows the user to type anonymous as the username at log-in, and to give his or her e-mail address as the password; this provides access to public directories and permits files to be copied to the user’s computer.

**Gopher:** A protocol and set of programs to allow rapid navigation, by means of menus, from computer to computer and through branching directories to target documents.

**Hypertext:** Electronic text in which certain words, usually highlighted or underlined, may be selected by the reader; that action will call other material—footnotes, related passages, images, sound, whatever—to the screen.

**HTML** (Hypertext Markup Language): With a markup language, it’s possible to mark an electronic text with tags <often within pointed brackets, like this> that are not themselves displayed, but which affect the way the text is displayed or printed. HTML goes beyond affecting the display, since the tags can also include instructions about making network connections, calling up helper applications, and so forth.

**HTTP** (Hypertext Transfer Protocol): An evolving set of conventions governing the preparation, presentation, and display of material on the World-Wide Web.

**URL** (Universal Resource Locator): The address where a specific electronic file can be found. The URL http://www.nyu.edu/acf/pubs/connect/index.html locates the home page of the online version of this publication; it indicates the type of server program that will make the file available (http), the computer that holds the file (www.nyu.edu), the directory path of the file (acf/pubs/connect), the name of the file (index), and the file type (html).

— DF
(originally from the National Center for Supercomputing Applications at the University of Illinois) and Netscape (a commercial product of a group including some of the original Mosaic developers, which quickly became the most popular browser) display images, and can call up other programs to display compressed files, movies, and so forth.

This is luxury navigating, Internet surfing with all the bells and whistles. And the bells and whistles don’t come cheap. When Carol Hutchins first wrote about Mosaic and the Web in the November 1993 issue of this publication, it was clear that it would increase network traffic hugely when it caught on. Not if; when: the Web was immensely attractive, and people would want to explore it and use it.

The Web takes ease of navigation even further than Gopher: Material can be presented in menus, much as in Gopher, but hypertext links can be embedded in text and images as well. No longer are you restricted to navigating an essentially hierarchical menu structure. Now you can click on a highlighted phrase in the text itself and get more information — perhaps a definition, or an associated picture, or a connection to a computer halfway around the world where the phrase is treated in depth. Click on the musical instruments in a picture and hear each instrument play. Click on a person’s name and be offered a form that you can fill out to send e-mail to her.

(continued on page 27)

Is Netscape for You?

Should you use Netscape? If possible, yes; its browser is free to academic users, and is faster than Mosaic. Other superior browsers may come along, but at this point the choice is clearly for Netscape. If you have an Ethernet connection or a high-speed modem — preferably 28.8 kilobits per second, but at least 14.4 — and an NYU DIAL (PPP) account or a similar connection through a commercial service provider, Netscape Navigator (the full name of the browser) will work effectively on your computer. (Slower modems are inadequate for transmitting graphics files; for text-only browsing, use Lynx, which is included in your NYU-Internet account.)

You can easily get the latest version of Netscape (currently 1.1N) from NYU’s own FTP server at
\texttt{ftp.nyu.edu/pub/mac/netscape}
(or, for Windows, \	exttt{.../windows/netscape}).

This can be done easily using Fetch on the Mac or, in Windows, WinQVT/Net. Enter the following information:

- **Host:** \texttt{ftp.nyu.edu}
- **User ID:** \texttt{anonymous}
- **Password:** your e-mail address
- **Directory:** \texttt{/pub/mac/netscape}

but give your actual e-mail address as the password, and substitute \texttt{windows} for \texttt{mac} in the last string if you want the Windows version.

At this point you are ready to download. Take all three files: the license specifies the legal uses; the Readme file gives installation instructions; the third file is the browser itself. The browser files are compressed; the .exe file for Windows is self-extracting, so all you need to do is launch it to start the installation process; for the Mac, you’ll need a program such as Binhex or Stufflt to uncompress the .hqx file.

To customize Netscape to work with your system and e-mail, there are several \texttt{Preferences} setting you can adjust located under \texttt{Options}.

Global UI goes WWW (continued from page 5)

options may be added to this menu.

Personal-Page Web Server

There is now an ACF server (pages.nyu.edu) that is dedicated to holding personal Web pages. All members of the NYU community will be able to publish their own personal Web pages up to 500 kilobytes in length.

To do so, you will need an NYU-Internet account. From your account, simply select the new \texttt{Pages} menu. Once there, you will find options for creating your page. In fact, selecting the \texttt{create} option will automatically create a page for you, almost instantly.

If your username is jones, your URL will be \texttt{http://pages.nyu.edu/~jones/}

The tilde (~) indicates that it is your home directory.

You will then be able to expand your page or pages as you like. You can get more information about personal pages in the NYU Web Guide.

Before you create your personal Web page, you should understand that the page, which includes your name and e-mail address when it is created, and any information that you add, will be accessible to anyone around the world who can connect to the Internet. If you are publishing pages that relate to your department or unit, you should not use the personal-page Web server; instead, see instructions above for “NYU Units.”
DIAL: Direct Access Modems to Offer Better Links to NYU-NET and the Web

Last September, the ACF started to offer SLIP/PPP accounts that allow members of the NYU community to dial into a new modem service and establish a direct Internet connection to NYU-NET. This type of connection provides the same functionality over a dial-up connection as you have at an NYU computer directly connected to NYU-NET, although at a slower speed.

We’re now going to start referring to this service as DIAL service (for Direct Internet Access Link) and the connection as a DIAL connection. The terms SLIP and PPP referred to very specific technical protocols that are evolving. Rather than change the name of the service and connection to track protocol evolution, we’d prefer to refer to the service by its functionality — that is to provide direct access.

This service has been immensely popular at NYU, as it has been at other colleges and universities, and as a result we had to start putting requests for new accounts on a waiting list starting last spring. The Student Senate expressed its concern about the situation, and as announced in President Oliva’s April 6 letter to the university community, we will add 100 modems this fall. These modems will all be allocated to the new DIAL service. Furthermore, they will be attached directly to NYNEX’s digital lines, which should result in clearer lines and fewer transmission problems and errors, since the modems themselves are digital.

Although it is not necessary to know it, the new DIAL service will rely on the PPP (Point-to-Point Protocol). This protocol will not only carry IP (Internet Protocol) traffic, but will also permit linking Novell clients to Novell servers (by carrying IPX traffic) and allow Macintosh computers to link themselves over the network (through ARA, or Appletalk Remote Access). These new services are made possible by investing in a new generation of modems which are basically dial-up servers, powerful small computers, in themselves. This is an exciting new product, for which demand currently far exceeds supply. We’re working with the supplier to ensure as early a delivery as possible for the equipment, and we expect to phase the modems into service shortly after their arrival. We’ll have a new telephone number for these accounts, as well as new client software for users to run on their own computers to establish communication.

We now want to tell you about the approach we’ve worked out in using these new facilities and in assigning DIAL accounts for them:

- Faculty and staff accounts currently in place will be renewed. If you are a faculty member and need a DIAL account, your request will be accepted directly. If you are a staff member and want to get such an account, your request will be put in the queue based upon your supervisor’s request in writing for such an account, stating that you need the account for your work.
- If you are a student in good standing at NYU and you already have an account, it will be renewed.
- DIAL accounts requested by instructors for course work will receive priority. Such requests should follow the procedures used for other course accounts. The ACF will announce to schools a deadline after which requests for DIAL accounts will no longer receive priority handling.
- During the fall term, new requests for DIAL accounts from students and staff members will be added to the existing waiting list.
- During the fall term, and at a rate consistent with assuring priority for course accounts and a reasonable degree of response for all DIAL account holders, the ACF will assign accounts to people at the head of the list.
- At the beginning of the fall term, and at a rate consistent with assuring priority for course accounts and a reasonable degree of response for all DIAL account holders, the ACF will assign accounts to people at the head of the list.
- During the fall semester, depending in part upon the level of excess demand for accounts, we will evaluate procedures in which schools sign off on the availability of non-course-related accounts for their students.

Access to the Internet is now being rapidly commercialized. In areas like New York, there are several firms that offer such access at moderate rates — roughly $20 a month. The large online services, such
as CompuServe, America Online, and Prodigy, are moving rapidly toward providing much IP functionality for subscribers. These commercial service providers offer alternative ways of connecting to the Internet. You’ll find more details in the box below.

— George Sadowsky
george.sadowsky@nyu.edu

Should You Use a Commercial Internet Service Provider?
There are two good reasons for opening an account with a commercial Internet service provider. If you are a frequent network user and would like access from your home, but you are outside NYU’s local calling area, you will probably save money by opening an account with a service provider in your own area, thereby eliminating costly long-distance modem calls. Also, if you would like access to a graphical browser such as Netscape, but you do not qualify for an NYU DIAL (PPP) account, a commercial provider may give you the type of Internet use you want.

When you are evaluating an Internet service provider, be sure to ask the following questions:
- Does it offer a student discount?
- Does it offer SLIP or PPP accounts so that you can use a graphical interface?
- What areas does it service?
- How fast are its modems?
- What are the hardware and software requirements of the system?

Here are a few service providers:
- IDT: 800/245-8000
- Mneumatics Internet: 212/293-0312; 914/359-4546
- Echo Communications: 212/255-3839
- Maestro: 212/240-9600
- PANIX: 212/877-4854; 212/691-1526
- The Pipeline: 212/267-3636

You can find a comprehensive list of commercial providers, usefully categorized by area code, at http://thelist.com/ or at http://beta.yahoo.com/Computers_and_Internet/Internet/Internet/Connectivity/ (typed all on one line).

Shortcuts on the Info Hiway...
IMHO, YMMV about how you will use this in RL...
Have you ever come across something like the above in e-mail or a newsgroup post, and you have no clue what the person is talking about? Well, welcome to shorthand on the Internet! Seasoned users employ shortcuts to replace common phrases when writing e-mail or responding to a newsgroup posting. Here’s a short list to help you decipher a few of the more common ones:

<table>
<thead>
<tr>
<th>Shortcut</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMHO</td>
<td>in my humble opinion</td>
</tr>
<tr>
<td>IMNSHO</td>
<td>in my not so humble opinion</td>
</tr>
<tr>
<td>YMMV</td>
<td>your mileage may vary</td>
</tr>
<tr>
<td>RL</td>
<td>real life (opposed to virtual life online)</td>
</tr>
<tr>
<td>BTW</td>
<td>by the way</td>
</tr>
</tbody>
</table>

some put-downs and a (sincere?) retraction:

<table>
<thead>
<tr>
<th>Shortcut</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>MYOB</td>
<td>mind your own business</td>
</tr>
<tr>
<td>RTFM</td>
<td>read the bleeping manual (for people who ask questions that are too basic)</td>
</tr>
<tr>
<td>J/K</td>
<td>just kidding</td>
</tr>
</tbody>
</table>

applause (often ironic):

<table>
<thead>
<tr>
<th>Shortcut</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOL</td>
<td>laughing out loud</td>
</tr>
<tr>
<td>ROFL</td>
<td>rolling on the floor laughing</td>
</tr>
</tbody>
</table>

some farewells, including rebuses:

<table>
<thead>
<tr>
<th>Shortcut</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>TTFN</td>
<td>ta-ta for now</td>
</tr>
<tr>
<td>TTYL</td>
<td>talk to you later</td>
</tr>
<tr>
<td>BRB</td>
<td>be right back</td>
</tr>
<tr>
<td>AFK</td>
<td>away from keyboard</td>
</tr>
<tr>
<td>TIA</td>
<td>thanks in advance (also written rebus-style as “aTdHoAaNKcSe”)</td>
</tr>
<tr>
<td>L8R</td>
<td>later</td>
</tr>
</tbody>
</table>

and my own favorite, an injunction to read, and deal with, the computer code behind the software:

<table>
<thead>
<tr>
<th>UTSL</th>
<th>“Use the source, Luke!”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>— Julia R. O’Brien</td>
</tr>
</tbody>
</table>

Julia O’Brien, who until recently managed the ACF’s Computer Lab at Third Avenue North, thanks the O’Buddy Mailing List for their help.

Julia O’Brien, obrien@nyu.edu
for many observers, how you read information becomes as telling as what you read. Pundits entranced by technology again predict the death of the book, in favor of online and CD-ROM publications. Yet some of the more engaging analysis about the Internet is taking place not online, but on the printed page, between hard covers.

There is no shortage of books about the Internet; some days it seems that you can't walk through a bookstore without coming upon some kind of Internet guide. Yet once you have mastered the basics, you may want to move beyond Internet for Dummies-style books.

In the beginning, there were simple books to tell you how to use the low-tech Internet software primarily available on the large Unix computers at schools and research institutes. This software allowed you to connect to other computers on the Internet, to read and write electronic mail, and to transfer files to and from your computer. One publisher of such specialized books was a small outfit in California, O'Reilly and Associates. O'Reilly was known for publishing hardcore technical manuals for programmers and managers of Unix systems. In 1992, O'Reilly published the equivalent of a sleeper movie, The Whole Internet User's Guide & Catalog, by Ed Krol. An extremely abbreviated version of the book had been distributed on the Internet as "The Hitch-hiker's Guide to the Internet," and was often recommended as a starting point for novice network users.

The book arrived just as Internet madness was taking hold of American culture, and The Whole Internet User's Guide was a surprising commercial success, the publisher's first best-selling title. After Krol, anyone could learn how to get around on the Internet without serving a long, frustrating apprenticeship, and the solution was available no farther than the nearest local bookstore.

Krol's guide spawned countless imitators, a deluge of Internet titles, many as generic and indistinguishable as brands of toothpaste. The Internet itself steadily became available beyond the academic world, as big commercial online companies (CompuServe, Prodigy, America Online) and local Internet access providers learned how to market previously esoteric services like Telnet, FTP, and Gopher. When the World-Wide Web became the hottest of the hot technologies, virtually every provider of Internet service raced to provide both outgoing and incoming WWW service, on the assumption that every consumer of WWW service was also a potential information provider.

The Internet's intellectual avant-garde, the thinkers and planners and developers who are associated with the growth and form of the network, have begun to consider the changes that new technologies have caused, and to speculate on the cultural upheavals yet to come. Ironically, the most prominent observations and analyses have appeared in hardcover books, the Internet proper being too disorderly a forum to sustain much public analysis and discussion of where the medium is, how it arrived at its present state, and where it might soon find itself. Recently, two books have appeared, each casting an eye — sometimes spellbound, sometimes jaundiced, sometimes disbelieving — on what we are coming to think of as Internet culture.

Cliff Stoll is known to many readers as the computer hippie who caught a group of hackers passing through his system at Berkeley. Thoroughly immersed in the Internet and its culture, he gradually realized that the technology was coming to absorb...
his entire life, and that realization led him to write *Silicon Snake Oil*, a book-length meditation on networks and the computer culture. Nicholas Negroponte is the founder of the MIT Media Lab, who in recent years has gained notoriety as the columnist on the back page of Wired magazine. After issuing pronouncements from within the magazine that has become an icon of Internet chic, Negroponte pieced eighteen months’ worth of columns into *Being Digital*, an analysis of the nature of information in its analog and digital forms, with specific emphasis on what this means about today’s and tomorrow’s Internet.

Cliff Stoll’s first book, *The Cuckoo’s Egg*, tells how Stoll — an astronomer at the University of California at Berkeley — discovered, stalked, and helped catch a group of East German computer hackers who were exploiting a security hole in a computer system he managed. The intruders, he discovered, were trying to gather U.S. national security and military data, selling nearly anything they could download to Soviet intelligence agents.

With an engaging, gee-whiz narrative style, Stoll provided a sensible introduction to the inner workings of the Internet. *The Cuckoo’s Egg* is no “how-to” book; it is an engaging tale that happens to touch on many of the bedrock techniques of navigating through the various parts of what comprised the Internet in the mid-1980s.

Stoll achieved even greater recognition a year later, when he played himself in a PBS dramatization of the book. A popular and memorable personality, he seems as if he could easily serve as a tour guide to the new Internet — the so-called Information Superhighway — given his boundless energy and his long-stand-...
puter," the producer says. "Fantastically computer-aware and works for hours at his desk. But there's a scary kind of narrowness around him." She confides, "This guy is nineteen and his curiosity is numbed. He's sweet, extremely shy, and has almost no social graces. What's sad, though, is that he's so bright, yet so limited."

Finally, you may cherish the hope that the Internet will provide a richer learning environment. But Stoll reserves his greatest scorn for the wholesale application of computing in education. He observes children making pointless electronic small-talk about environmental issues with their peers on the other side of the country, when they could learn more about their environment by taking local field trips. He witnesses a class of eighth-graders in Chicago communicate, after the installation of thousands of dollars' worth of computer equipment, with a class in Puerto Rico. "I was appalled," he says, "to discover the children asking astonishingly naïve and uninteresting questions: 'What does it feel like to live in Puerto Rico?' 'Do you watch Michael Jackson?'" Stoll concludes, "They could have accomplished as much—and more—using postcards."

What does this mean for us, then? Do we throw away our computers and unplug ourselves from the network? Must we go back to our typewriters? Should we quit sending e-mail?

Not at all, Stoll says. But we would be wise to keep the technology strictly in perspective. If we expect it to educate our children, manage our government, and provide for our social lives, he suggests, we will become a bitterly impoverished nation no matter how steeply our Gross National Product may increase. Our desktop computers and our software and our connections to the network are mere tools, and in Stoll's estimation they are not especially valuable tools.

People who earn their livings by means of computers and networks may feel threatened—even outraged—by Silicon Snake Oil. For many in the field, Stoll will represent the first lick of a coming backlash.

Yet that would be exactly the wrong way to read Cliff Stoll. Consider Silicon Snake Oil a warning shot across the bow of lazy thinkers, careless planners, and mindless technocrats. This technology is firmly with us, and it shows no signs of retreating. So, we can choose to use it wisely now, says Stoll...or we will need to contend with the unpleasant results later.

Stoll seems to delight in the extremist position he has staked out for himself, as if he wants to see how naughty we will allow him to be.

Nicholas Negroponte, on the other hand, has assumed the mantle of the prophet in Being Digital, and it is an unsettling future he envisions for us, a world in which "a toaster should not be able to burn toast" and in which "your refrigerator notices that you are out of milk, [and] can 'ask' your car to remind you to pick some up on the way home."

Perhaps many of the technological innovations Negroponte predicts will come to pass; some may even be pleasant improvements. But to watch Negroponte at work is to envision what might happen if we cross-bred an especially stern Calvinist preacher with a monomaniacal marketer from Silicon Valley. Negroponte believes that our future is to be found in all things digital, but he speaks with the voice of a man who carries on his shoulder a monumental chip. He is a crusader for an online utopia, and he is Stoll's polar opposite.

It is a telling detail when Negroponte describes the reaction at MIT to his founding of the Media Lab in the 1980s. It was, he tells us, comparable to the situation in Paris in 1863, when the conventional art world denied the Impressionists the opportunity to display their work in an official art show. (Negroponte is not given to modest comparisons.)

Designed as a hotbed for advanced research in the fields of imaging, computer interfaces, artificial intelligence, and educational technologies, the Media Lab is the premier center for exploration in how people interact with machines. The lab's home page (its full URL is http://www.media.mit.edu/MediaLab/Description.html) provides pointers to a breathtaking collection of projects and investigations.

It would be easy to dismiss Negroponte as a pseudo-visionary crackpot, but behind the mannerisms and the arrogance, there is inarguable brilliance and a refreshing sincerity. Negroponte is the truest of true believers.

At the heart of Being Digital is the notion of the fundamental difference between "atoms" and "bits." Unless we understand the distinction, Negroponte argues, we will never
grasp the importance of "being digital." And the important detail about a bit, repeats the author, is that "bits are bits"; it doesn't matter whether an information bit is content (a chapter of a book) or description (typesetting information about the chapter).

On its surface, the point seems obvious, though the boundary between the two is frequently blurred: How often do people mistake the act of sending a fax (temporarily converting paper-and-ink atoms to bits, and reconstructing them as paper-and-ink atoms at the receiving end) with sending a document via e-mail (shipping the information itself as bits)? In one process, you replicate a piece of paper at some distant point; in the other process, you transfer the raw information itself to that distant point, which means that the information can be converted into paper-and-ink or reused as needed in any other medium. Anyone who has typed the contents of a fax into an electronic document realizes the subtle, but crucial, difference.

Here is where Negroponte's doggedness begins to pay off, in much the way that a sculptor's persistent efforts reshape raw material into a coherent new shape. For example, today's (analog) television involves transmitting sound and pictures mindlessly, without regard for content. With tomorrow's digital television, argues Negroponte, the old rules will be swept away. All content will be essentially electronic bits, and when those bits of content are transmitted, broadcasters can also intersperse bits about the content. For example, there could be bits telling your (digital) television how to display the information for best display quality (scan rate and resolution) on your set, or whether to allow the program to be displayed at all, based on its content rating.

When the television is a digital device, the very concept of "broadcasting" mutates, since transmitting a program to your television comes to resemble the process of downloading a file to your computer. Here is where Negroponte draws a clear portrait of the much-discussed convergence of the television, telephone, and computing industries. If everything is digital, and "bits are bits," then there is essentially no distinction "in the pipeline to your house" between the media. And when that occurs, says Negroponte, what we now know as "the Internet" will be cease being a distinct entity, because "Internet" data will be a mere trickle in the global digital pipe.

So, where Cliff Stoll sees an infinite wasteland of "slush piles," an existence in which we become more disembodied and less humane, Negroponte envisions a veritable Promised Land: "While the politicians struggle with the baggage of history," says Negroponte, "a new generation is emerging from the digital landscape, free of many of the old prejudices. These kids are released from the limitation of geographic proximity as the sole basis of friendship, collaboration, play, and neighborhood." He concludes, "digital technology can be a natural force drawing people into greater world harmony."

The world of the Internet is probably not yet as bleak as Cliff Stoll suggests it will be. It does not approach the seamlessness and ubiquity envisioned by Nicholas Negroponte. And it is not nearly as pervasive as the popular media portrays it. It is true that the Internet gives us dramatic new access to information and to each other; but few pundits care to account for that great unknown, human nature. When we toss the worlds of business, education, entertainment, and politics into a single equation, and then try to factor in human chaos, there are no predictable results.

We are in the midst of an intriguing transition, racing to embrace innovation even as we try to understand what it means and how we can best use it. But the future, where technology will be even more closely interwoven in daily life, is still uncertain enough that each of these books would be an excellent candidate for a time capsule: Read them now, put them on your top shelf, and dip into them again in about two years to see how far we get in either direction. (You might even toss in a copy of Machiavelli for perspective.)

Perhaps the sluest lesson from each author, whether intentional or not, is that there is still a place in the midst of "information technology" for the careful reader, and that the ideal medium for this type of analysis may still be the printed page.

You will not find either of these books online right now, and with good reason: It would be impossible for any writer to create such thoughtful, intricate arguments as these in the freewheeling forum of the Internet. The noise online is too loud. The sense of continuity is rare. There is no quiet place — yet — for writers to write and readers to read.
School of Ed and ACF Host New York High-Schoolers in Computing Program

Jeffrey Lane
jeffrey.lane@nyu.edu

More than thirty young people from the New York area participated in this year’s Summer Program in Computing for high-school students at NYU. They became skillful in using both Macintosh and DOS computers, and they used their temporary NYU-Internet accounts to navigate FTP and Gopher sites and the World-Wide Web, and to exchange electronic mail with teachers and students in the program, and with other young people in countries around the world.

For more than twenty-five years, the Academic Computing Facility has hosted high-school students for a month-long session focusing on computers and computing. “As the nature of computing has changed,” said Vincent Doogan, Associate Director for User Services at the ACF, “so has the nature of the summer program. At one time the emphasis was on programming alone. Now that computers are part of our daily lives, the summer program’s emphasis has shifted from programming to using computers for writing, art and graphics, and communication.” This year’s students were instructed in software applications such as Microsoft Word, Adobe Photoshop, Macromedia Director, and, of course, the World-Wide Web browsers Lynx and Netscape. They also became proficient in using HTML (Hypertext Markup Language), the language behind the Web.

This year’s program was supported by both the School of Education and the Academic Computing Facility. Shirley Hanein coordinated the curriculum and managed the day-to-day activities for the School of Education. “This program is a natural match for Dean Ann Marcus’s goals,” she said. “Her commitment to public education in the New York area is well known. Some of these students have never used computers before. This program can make a real difference both to the students and to...
Lee Frissell, Director of Field Projects for the School of Education, recruited students based on recommendations from school principals and district superintendents. Students came from high schools in Manhattan, Brooklyn, and the Bronx.

The ACF's lab at 14 Washington Place, normally closed during the summer, was dedicated to the program for four weeks. The students began their days by checking their e-mail and catching up on their newsgroup postings, then set to work on their group or individual projects. They learned how to use the NYU-Internet account's mailer (Pine) and editor (Pico) and how to navigate the Internet using the account's menu interface. Learning to do online research was one of the major objectives of the program; the students used various Internet search engines, including Veronica and Archie, and took full advantage of Netscape's "Net Search" function to explore the World-Wide Web.

The resources at the ACF Education Building Lab made it possible for the students to scan photos and drawings, to use Photoshop to create and manipulate the images, and to integrate them in multimedia presentations.

This is the first time I've taught such a course, and I was astounded by the enthusiasm these young people had for learning and for using technology for creative pursuits. Not having taught this age group before, I was surprised at how much they knew about the Internet and computing in general, and how earnestly they worked on the sometimes tough concepts and problems they encountered. Even those who had had little prior experience with computers dove right in and were soon fully involved in the complexities of multiplatform Internet authoring. In fact, we who were teaching to course found we had to accelerate our planned curriculum to keep up with them.

If you would like to see the high-school students' projects on the WWW, use a graphical browser such as Netscape to open the URL http://www.nyu.edu/pages/highschool/ and have a look around.

New Fall Colloquia on Computers & Communication: Teaching with the Internet, Authoring CDs, and More

The NYU colloquia on computers and communications are back! As we go to press, two new presentations in this popular series have been scheduled for the fall semester, and more sessions are planned.

- **The 24-Hour Classroom: Teaching with the Internet** will open the fall semester series. Professor Barbara Kirshenblatt-Gimblett (Performance Studies/TSOA and Hebrew and Judaic Studies/GSAS), with additional discussion and demos by ACF Instructional Support staff. Co-sponsored with the EQUAL Commission. Friday, Sept. 22, 1995, 2:00 p.m., Warren Weaver Hall, room 109. As refreshments will be served, please e-mail equal@nyu.edu or call 998-2200 if you plan to come to this event.

- **CD-ROM Authoring and Publishing for University Faculty** will be a non-technical, practical overview and demonstration. Robert Kern, New Media Senior Manager for Prentice-Hall, and Chris Rogers, Director of New Media Business for Times-Mirror. Friday, October 13, 1995, 2:00 p.m., Warren Weaver Hall, room 109.

A selection of related systems and materials will be available for faculty members to explore at the ACF Innovation Center for several weeks following the Kern-Rogers presentation.

Each semester's series is sponsored by the ACF and the Faculty of Arts and Science, with support from Apple Computers. Typically, other departments join in co-sponsorship of individual colloquia. The colloquia are open to all NYU faculty, staff, and students. Further details on these and other presentations in the fall series will be posted on the NYU Web http://www.nyu.edu/acf/nyu-events/), and flyers will be mailed to all NYU faculty. To receive an e-mail flyer or to be added to the ACF's mailing list, call 998-3333 or send e-mail to document@nyu.edu.

Since 1993, all colloquia have been videotaped. Copies may be borrowed from the ACF (call 998-3036 or send e-mail to the above address).

— Estelle Hochberg
estelle.hochberg@nyu.edu
Garbage in Gotham: Enter(ing) the Trashless Classroom

Robin Nagle
nagle@is.nyu.edu

This fall, I'll teach a new class in the GSAS Draper Program in Liberal Studies that will combine one of humanity's most mundane objects with one of its hippest new developments. It will blend a piece of material culture found all over the world with a new worldwide connection of thinkers, commentators, and electronic passers-by.

Garbage in Gotham: The Anthropology of Trash will examine the cultural assumptions and revelations found in the category of object called "garbage" — and it will rely on the World-Wide Web to ensure that no trash is generated in the process.

Like most university classes, Garbage in Gotham requires written work. A writing assignment usually implies a work on paper, handed in to the professor, evaluated, handed back, occasionally saved for posterity — but more often circular-filed. Some professors require students to hand in written work on used paper, but the ultimate destination is the same.

The Web solves this problem. Students submit their papers electronically. They are also required to monitor and participate in conversations on class topics between meetings by checking the class's online discussion group. The syllabus and many of the readings are posted on the NYU Web site, within the NYU home page; the syllabus and readings are linked. During the semester, the offerings of the class's home page will grow as students add links, pages, and information. For part of their final assignment, each student will create her or his own home page around a specific research topic.

A key to the success of this pedagogical choice is to make sure all students are completely comfortable with the technology. The first class session is devoted to explaining the intention of the semester, and teaching how to use e-mail, browse the Web, connect to a news group, and build a Web home page.

Robin Nagle, an anthropologist and environmental journalist, is Assistant Dean of the Graduate School of Arts and Science.

If you'd like to sit in on a paperless class, use any WWW browser to open the URL http://www.nyu.edu/classes/garbage/ and see what's up.

Technology and Trash

The Web complements the subject of the course. It is a brand-new technology that can deepen our understanding and appreciation of an age-old concern. I conceived this course because I am intrigued by the irony and stubbornness of trash. There is no category of material culture that is as intimate and at the same time as reviled. Each of us generates four pounds of garbage on average every day. There is virtually no area of contemporary life that does not create refuse. Our urban spaces reflect this; walking New York's residential neighborhoods often means maneuvering around mounds of plastic bags and rows of cans. The growl of garbage trucks is such a normal part of New York cacophony that few of us notice it, except when it's accented by the relatively new clank and smash of upended recycling containers.

At the same time, we litter bemoan the city's trash-strewn streets, practice shallow breathing on hot summer days when the sidewalk's stench is nearly choking, cluck at overflowing city garbage cans and highway meridians dotted with debris. Workers for the Department of Sanitation are never given mayoral commendations that make the evening news.

Our paradoxical relationship with trash invites many questions. How is it that, as a culture, we so dislike a category of object that we know so well? How have we come to accept the linear pattern of object creation, use, and discard? How is it that we are comfortable with an ever-growing list of things now made in plastic or paper that was once made in metal, wood, or cloth? How do we assign worth and then rescind the assignation? What would be necessary to create a system of value that does not allow

(Continued on page 19)
INSTRUCTIONAL BOOKBYTES

Brave New Schools: Challenging Cultural Illiteracy through Global Learning Networks
Jim Cummins and Dennis Sayers
New York: St. Martin's Press, September 1995, 384 pages. $23.95

Interview by Enid Figueroa

Prof. Figueroa: What is Brave New Schools about?
Prof. Sayers: Partly it's intended as a guide for parents and educators to Internet resources for kids. The last third of the book offers over 800 annotated listings categorized by subject areas, ranging from parent involvement to creative arts in education, social studies, language arts, mathematics and science, multicultural education, bilingualism and second-language acquisition, and resources for students with special learning needs. This book is not about technology per se but, rather, about a vision of how education can enact, in microcosm, a radical restructuring of power relations both in domestic and global arenas through the meaningful use of technology.

Prof. Cummins: We focus on three issues that are widely debated though rarely linked: First, the increase in cultural diversity and immigration; second, the debate on contemporary educational reform, and third, the global networking possibilities ushered in by the "information superhighway." We've reached a crossroads in each of these three areas; the choices we make in the next few years will have enormous implications for our societies. In order to argue convincingly for wide-ranging public and educational access to global learning networks, and for their specific importance in promoting both equity and excellence in education, we demonstrate in Brave New Schools that it is necessary both to describe how such networks have been used powerfully in the past and to articulate a coherent vision of their potential importance in addressing the social and economic challenges we all face as a global community.

Prof. Figueroa: For me, the heart of Brave New Schools is in the second chapter where you discuss teachers, parents, and students who are engaged in various global learning networks.

Prof. Sayers: We describe eight projects there. One involves a Spanish-speaking bilingual teacher from San Francisco and her African-American colleague who had to confront the growing prejudice in their school between the newly arrived Latino children of Mexican heritage and the African-American students. To do so they established a long distance team-teaching partnership with a bilingual teacher here in New York City who worked with Spanish-speaking students from the Caribbean. Since many of them were of African descent, the classes linked San Francisco's students with far-away colleagues who in many ways were like them—students who spoke the same mother tongue and shared the experience of learning English as a second language—but whose physical attributes and pride in their African heritage more closely resembled their African-American schoolmates. In this way we hoped to provide a bridge between the African-Americans and the Latinos who saw one another every day at school but whose interactions were distorted by fears and deep-seated prejudice.

On October 20 from 9:30 am to 11 am, Professors Cummins and Sayers will present Brave New Schools to the NYU community and to networked public-school teachers around the world from room 109, Warren Weaver Hall (251 Mercer Street at West Fourth).
the first time ever, Latina girls have joined the Girl Scout troop, originally organized by African-American and European-American mothers at the school. Who are the new recruits? Every single girl in the bilingual class that worked on the global learning project.

Research we have done suggests this long distance bridging works in much the same way that cooperative learning works — that is with children from different ethnic and racial backgrounds working in small groups, much as pioneer social psychologists such as Gordon Allport first proposed in his classic The Nature of Prejudice forty years ago. At a local level, cooperative learning helps break down barriers between groups through positive interdependence to achieve a common goal. In global learning networks, we see two distant classes working cooperatively. Allport sought to determine under what conditions two racial groups (both entwined in local dominant-subordinate societal relations) would reduce their prejudice toward each other through working toward a common goal. With global learning networks, partnerships may be formed between such a variety of educational settings (that is, schools from the first world, the third world, schools for native peoples, schools close by and those far away, and so on) that in many cases, issues of power relations such as prejudice are confronted at a global level and, while remaining rooted in local realities, are easier to see for what they are when two different worlds are compared.

**Prof. Cummins:** As a context for dialogue, intercultural learning networks provide an opportunity to find a voice, to have a say, and to be heard in terms of learning goals shared with another distant group whose voices are equally valued. Above all, it is a dialogue about finding a common ground for working with distant partners, about negotiating a joint site for constructing meaning and defining identity. It is about jointly posing a significant problem of mutual interest to be investigated locally; about deciding on a basis for comparison of what is being learned; about discovering and refining comparable tools of study; and about sharing and comparing the outcomes of parallel studies in each locale and helping one another transform learning into action. It is about developing a working knowledge of what it is to think globally and act locally.

(continued on page 25)

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**Garbage (continued from page 17)**

for today's scale of throw-aways?

The garbage we confront in 1995 differs from that of even twenty years ago, because so many categories of object are now defined as disposable. Cutlery, plates, razors, hospital gowns, cups and glasses, cameras, diapers, milk containers — these were once relatively permanent but are now commonly tossed once used. One could propose that the increased disposability of our material culture reflects a concomitant disposability in other areas. Are our relationships, our commitments, our bonds to social culture less solid, more expendable, than they were in our parents' time, or our grandparents? Does our disposable culture signify a deepening sense of alienation and anomie?

**The Paradox of the Web**

Using the Web to draw the class together holds its own paradox. The Web is the ultimate dissolver of material bindings. Some would argue that it is the ultimate isolator. It can indeed distract from the messier, more tangible "real" world. But at the same time, on the Web and on the Internet one can create or find a kind of community with anonymous others who can become intimates, though one may never meet them face to face. In a university, the Web allows teachers and students to dissolve classroom walls, continue conversations outside the boundaries of time, invite outsiders inside the discussion, and glean knowledge from people with similar expertise or curiosity from anywhere that the world is interconnected.

Universities, at their best, provide venues for students to experience the deep and even life-altering pleasure of debating ideas, challenging colleagues, learning new perspectives and radically different points of view. We grow most profoundly through our exchanges with others. The Web provides a new way to help this happen.

A friend who teaches ethnomusicology and who created a whimsical, scholarly home page as a teaching resource offers the following thought from Seymour Papert: "The construction that takes place 'in the head' often happens especially felicitously when it is supported by construction of a more public sort 'in the world' — a sandcastle or a cake, a Lego house or a corporation, a computer program, a poem, or a theory of the universe. Part of what I mean by 'in the world' is that the product can be shown, discussed, examined, probed, and admired. It is out there." Adds my friend: "Like a set of Web pages."
New Software for Artists at the ACF: Facilitating Creativity

Philip Galanter
galanter@nyu.edu

The ACF Arts Technology Group offers a number of services to support the various arts programs at the university. Along with providing studios with special hardware for audio, video, scanning, and other media-related functions, the ACF also offers NYU artists a wide selection of software.

The larger box lists the software the group has available. Many of the programs have been described in earlier publications; here we outline the features of the software offered for the first time this semester.

Adobe Acrobat Pro allows artists to create Portable Document Format (PDF) files that can be viewed on and printed from a number of different systems, including Macintosh, Windows, and Unix machines. Such documents can include multiple fonts, color graphics, and photos with full artistic control over design and layout; they are increasingly being found on the World-Wide Web as a way to give the artist greater control over the presentation of his work.

Adobe Dimensions is an easy-to-use application for creating 3D objects from text and other 2D shapes. Dimensions can be used to create logos or other text designs by extruding and beveling standard Postscript fonts. The software offers control over lighting and shading, and can be used with Photoshop to apply surface textures.

Adobe Streamline can be used to convert pixel-based images, such as those from scanners, into PostScript line art. Once converted into PostScript objects, the generated vector line art can be edited, colored, and imported into other applications such as Adobe Illustrator.

Kai's Powertools Convolver is a plug-in for Adobe Photoshop and Fractal Design Painter that provides powerful control over effects such as blur, sharpen, emboss, edge detection, unsharp masking, and other similar functions. Convolver's unique...
Macintosh Software at the Student Studio, Fall 1995

**Audio and Music**

<table>
<thead>
<tr>
<th>company</th>
<th>program</th>
<th>version</th>
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<tbody>
<tr>
<td>Coda</td>
<td>Finale</td>
<td>2.6.3</td>
<td>musical score preparation</td>
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<tr>
<td>Digidesign</td>
<td>Sound Designer</td>
<td>2.7</td>
<td>digital audio editor</td>
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<tr>
<td>Digidesign</td>
<td>Turbo synth SC</td>
<td>2.2</td>
<td>digital audio synthesizer &amp; effects</td>
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<tr>
<td>MacroMedia</td>
<td>Sound Edit 16</td>
<td>2.5.2</td>
<td>easy digital audio editor</td>
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<td>OpCode</td>
<td>Cue</td>
<td>3.05</td>
<td>film scoring and conducting</td>
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<td>OpCode</td>
<td>Galaxy Plus</td>
<td>1.29</td>
<td>MIDI instrument editor</td>
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<tr>
<td>OpCode</td>
<td>Max</td>
<td>3.0*</td>
<td>visual object-oriented MIDI prog'ming</td>
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<td>OpCode</td>
<td>Studio Vision Pro</td>
<td>2.8.8*</td>
<td>MIDI sequencer with digital audio</td>
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<tr>
<td>OSC</td>
<td>Deck II</td>
<td>2.2*</td>
<td>digital audio recorder &amp; mixer</td>
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**Imaging**

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<td>Acrobat Pro</td>
<td>2.0**</td>
<td>create portable document (pdf) files</td>
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<td>Adobe</td>
<td>Dimensions</td>
<td>2.0**</td>
<td>3D effects for type and line art</td>
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<td>Adobe</td>
<td>Illustrator</td>
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<td>Adobe</td>
<td>Stream line</td>
<td>3.1**</td>
<td>converts images to line art</td>
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<td>Adobe</td>
<td>Photoshop</td>
<td>3.0</td>
<td>image processing and manipulation</td>
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<tr>
<td>Equilibrium</td>
<td>DeBabelizer</td>
<td>1.6*</td>
<td>scriptable image file-format conversion</td>
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<td>fractal Design</td>
<td>Painter</td>
<td>3.1*</td>
<td>painting and cell animation</td>
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<td>Kodak</td>
<td>Shoebox</td>
<td>1.0.1**</td>
<td>image-archiving utility</td>
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<td>Quark</td>
<td>QuarkXpress</td>
<td>3.31</td>
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<td>Rascal</td>
<td>TypeBook</td>
<td>4.02**</td>
<td>font catalog printing utility</td>
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<tr>
<td>S.H. Pierce</td>
<td>FlipBook</td>
<td>1.0**</td>
<td>QuickTime-animation printing utility</td>
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<td>S.H. Pierce</td>
<td>PosterWorks</td>
<td>**</td>
<td>large-scale output and printing utility</td>
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**Imaging Plug-Ins**

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<td>Textureshop</td>
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<td>Andromeda</td>
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<td>KPT Convolver</td>
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<td>advanced image processing</td>
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<td>HSC</td>
<td>Kai's Power Tools 2.1*</td>
<td>advanced image processing &amp; textures</td>
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**Multimedia**

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<td>Persuasion</td>
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<td>Clarus</td>
<td>Hypercard</td>
<td>2.1</td>
<td>simple interactive multimedia</td>
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<td>Kodak</td>
<td>Arrange-It</td>
<td>1.0.2**</td>
<td>image-oriented CD-ROM creation</td>
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<tr>
<td>Kodak</td>
<td>Create-It</td>
<td>**</td>
<td>image-oriented CD-ROM creation</td>
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<td>MacroMedia</td>
<td>Authorware</td>
<td>3.0**</td>
<td>easy interactive text &amp; multimedia</td>
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<tr>
<td>MacroMedia</td>
<td>Director</td>
<td>4.0.4*</td>
<td>advanced interactive multimedia</td>
</tr>
<tr>
<td>Netscape</td>
<td>Netscape</td>
<td>1.0N</td>
<td>World-Wide Web browser</td>
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**Utilities**

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<td>Dantz</td>
<td>Retrospect</td>
<td>2.1</td>
<td>file archiving and backup</td>
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**Video and Animation**

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<td>Premiere</td>
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<td>3D</td>
<td>1.2*</td>
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<tr>
<td>Virtus</td>
<td>WalkThrough Pro</td>
<td>2.0**</td>
<td>virtual-reality creation and navigation</td>
</tr>
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</table>

"update" and "new software" provided.

In addition, interactive support for Macromedia Director movie and Lingo is provided. Completed works can be distributed as stand-alone applications that can be run on both Macintosh and Windows platforms.

**Virtus Walkthrough Pro** is a 3D modeling and visualization program that can be used for set design, gallery and site-specific art installation, and virtual-reality experimentation. Walkthrough allows the artist to model and arrange an environment, and then to "walk through" the space in real time. Environments so created can be published for use with a player which can be distributed for interactive use on both Macintosh and Windows platforms. In addition, walk-throughs can be captured as QuickTime movies for noninteractive presentation.

Web Gallery Now Open for Online Exhibits
See page 5 for more information.
Dear Professor Newcomer:

Welcome to NYU and to the ACF's Social Sciences support services. The ACF has a wide variety of resources that can help you with all of your computing needs, and I've mailed you a brochure outlining them. But, regarding the research you've been doing at the London School of Economics, our Social Sciences Group can assist you in transferring all of the data you've been using to New York. We can also help you implement your statistical designs, and if you need additional data, we can get that for you from a number of sources.

A good place to learn about our group is through our new World-Wide Web (WWW) pages. You sent me e-mail from a networked NYU computer, so you clearly have all the resources required to "surf" the Web. I'll show you how to access our new Social Science page on the NYU Web and find links to data relevant to your research in British parliamentary history, and a whole lot more.

You can get to the page through menu options from the NYU home page and the ACF page (whose URL is http://www.nyu.edu/acf/); you can read a lot more about them in the current issue of Connect. Our own home page features a bookcase that reflects the way we group our services: Data Distribution and Management, Survey Research and Design, Geographic Information Systems, and Statistics. Within these groups you'll find a good bit of important information that can enhance your research here at NYU.

Let me take you on a tour from the ACF home page with your specialty in mind. Each Web page, as you probably know, has certain hotspots — places that have links to another page. These hotspots are usually highlighted text or buttons, but can be parts of a larger image. When the cursor is dragged across a hotspot, it becomes a hand, indicating that you can click on that spot to go to the next level. Select the Social Sciences button. Voilà! Our page appears and you will see an elegant set of bookcases with labels across the top and down the sides.

To look for data about your area, try clicking on the shelf at the intersection of the column labeled Survey R&D and the row labeled Data. A new screen appears — The Survey R&D Data Page. There you'll find a button labeled Comments and Orders. You'll use this later. There are other buttons too, such as the ICPSR button, which takes you to the source of thousands of data sets archived at the University of Michigan (see box for more details).
Once you're connected there, you can click on a button for ICPSR Resources and Services.

At the next level, in the paragraph headed Access to ICPSR's Data Resources, you'll find the terms FTP, CD-ROM, and diskette highlighted — three easy ways you can access the data. Data sets listed under FTP are immediately sent to NYU from ICPSR via File Transfer Protocol, at no cost to you — one of the many services that our membership in the consortium provides. If you choose data sets that aren't available via FTP, ICPSR will send the data to you overland.

To search the text describing the data sets, you can use the Find function that's part of Netscape, the browser. Click on the Find button on the menu bar and a window opens to accept a search string. Type in British, for example, and it will search for all occurrences of the word in the titles on the list of available data sets.

This should help you get started. I'll send you e-mail in the near future discussing suggested links or bookmarks on our Web page that may be of further interest to you and your research. All the best.

— Frank LoPresti

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Some Useful Web Sites for Social Scientists

These Web sites can be reached through links on the ACF Social Sciences home page.

ICPSR

ICPSR (the Inter-university Consortium for Political and Social Research), of which NYU is a member, serves member colleges and universities in the United States and abroad and its archives are based at the University of Michigan's Institute for Social Research. Our annual dues cover most services to NYU researchers. ICPSR provides:

• Access to a large archive of machine-readable social science data
• Training facilities in basic and advanced techniques of quantitative social analysis
• Resources that facilitate the use of advanced computer technology by social scientists.

You can browse their home page to find out what is new. For example, they just released the American National Election Studies 1948-1994 CD (ICPSR Study 8475) and the 1992 Pre- and Post-Election Survey (ICPSR 6067), described in detail on their home page.

A search of the data holdings is provided on the Web page. Newly released and updated data collections as well as the ICPSR training programs are announced in the quarterly ICPSR Bulletin (JSE). These bulletins are available in the Web page.

Journal of Statistics Education

The Journal of Statistics Education is a refereed electronic journal on postsecondary teaching of statistics. The journal is supported by the Department of Statistics at North Carolina State University and by a grant from FIPSE (Fund for the Improvement of Postsecondary Education), U.S. Department of Education.

The JSE page includes entire articles from the journal. Many of the articles are elementary enough to be and are useful for teaching first courses in statistics.

The data sets used in the articles are also available from the Web page. Electronic subscriptions to jse-talk and announcements of new issues are available via e-mail free of charge. It also links users to the Web pages for two major packages, SAS and SPSS.

StatLib

StatLib is a great resource for those interested in links to statistics pages at many other universities:

http://lib.stat.cmu.edu/www/otherplaces/

It's moderated by Mike Meyer (mikem@stat.cmu.edu), a senior research scientist in the Department of Statistics at Carnegie Mellon University.

US Census Information Server

The self-proclaimed "Factfinder for the Nation," the Census Bureau has created a server that is a model server for government agencies to follow. In short, it organizes information so that citizens can make their own use of it. You can get financial data on state and local governments, as well as schools. The Bureau's statistical briefs are printable PostScript documents that cover a whole range of information from poverty in the U.S., statistics on housing changes from 1981 to 1991, or statistics on people of Asian and Pacific Islander heritage in the American population. In the Census Bureau Art Gallery they even display posters used to promote participation in the decennial census.

Although the actual raw Census data are not available due to privacy laws, the Data Extraction System (also known as SIPP-On-Call) summarizes recent Census data based on criteria you supply. You can perform a search based on a huge number of variables and receive the results in by Telnet, by e-mail, or by a temporary file stored at the Census FTP site. The Census Web address is:

http://www.census.gov/

— FL
More Services at Expanded Site: Equipment, Financing, Repairs, Books

Kathy Bear
beark@is2.nyu.edu

The newly expanded NYU Computer Store reopened its doors on June 5, and the response from the NYU community has been overwhelmingly positive. Our service department and warehouse have relocated to our larger space at 242 Greene Street, so now our customers can order, repair, or pick up their microcomputing products all at one convenient location. And our increased space has allowed us to incorporate electronic merchandise, so we now carry an assortment of calculators, word processors, telephones, and other small electronic items. We have also been able to increase the number of computers we have on display, so our customers can examine a variety of equipment before making their purchase. We have more books, software, supplies, and accessories, too — so please stop by and check out our increased selection.

Deferred Payments on Computer Equipment

Because of the university's commitment to supporting the computing needs of its students, this year the NYU deferred-payment program has been extended, so students may now defer their payments for up to two years. The program works as it did in past years. After placing a $500 deposit, a student may defer up to $1500 additional toward the purchase of computing equipment through the NYU Computer Store. Students who have accumulated less than 80 credits will be approved for the two-year deferment, provided they are in good financial standing with the university. Students who have accumulated 80 credits, or who are only maintaining matriculation, will be approved for a one-year deferment.

Deferments are interest free, provided your payments are made to the Bursar's Office by the due dates. If you are interested in pursuing a deferment, please contact us at the Computer Store before September 30, 1995, which is the last day computer deferments are accepted.

Back-to-School Specials

Apple, IBM and Compaq have all offered the educational market substantial savings on selected products during the back-to-school period. For example, Apple's new Performa 5200 with PowerPC 603 running at 75 MHz, with 8MB of RAM, an
800MB hard disk, quad-speed CD-ROM drive, internal modem, 15-inch Multiple-Scan display, keyboard, mouse, and Performa software, is selling at the back-to-school price of $1830. IBM’s Aptiva 720 P75 is also an excellent value this fall. It features the Pentium P54C chip running at 75 MHz, 8MB of RAM, a 727MB hard disk, quad-speed CD-ROM drive, internal modem, keyboard, and mouse for $1760. If you are looking for a good buy on a laptop, Compaq is offering the Contura 410C. With 4MB of RAM, a 250MB removable hard disk, 9.5-inch dual-scan passive-matrix color display, and full-size keyboard with trackball, the Compaq Contura is an excellent buy at $1950.

When thinking about your computer purchases for the coming year, don’t forget our trade-in program. If you have old or outdated hardware you would like to trade in for credit on a new Macintosh system, you simply call Sun Remarketing at (800/992-1449) for a quote. If you decide to accept Sun’s offer, bring your equipment to the Computer Store for a voucher that can be used toward the purchase of any Apple equipment.

Software

New in our software department is McAfee’s Academic Software Program. We now carry single-user academic versions of McAfee’s VirusScan software for DOS, Windows, and OS/2, and NetRemote PC remote-control software. These packages include software, 30 days of free upgrades, and 90 days of technical support. We can also sell multi-user packages for all McAfee software, which include the software, one set of manuals, and one year of unlimited upgrades, updates, and technical support. You may also purchase additional years of upgrades and technical support for single and multi-user packages from the NYU Computer Store.

Please stop by and visit our larger NYU Computer Store. We like it and hope you will too. See you soon!

E-Mail Addresses for the Computer Store

For quick communication and response, try sending e-mail to us at
computer.store@nyu.edu
or computer.service@nyu.edu
depending on your needs.

- KB

Brave New Schools (continued from page 19)

Prof. Figueroa: Beyond reducing prejudice, what will be the impact of global learning networks in the future?

Prof. Cummins: The teachers whose pedagogy is described in Brave New Schools are determined that their students will have the intellectual and cultural tools to participate critically and effectively in the democratic process of the coming century, whether they be born in migrant camps, in the midst of urban blight, or in suburban areas that ring the inner cities. Their rationale is very simple: in the world of the twenty-first century, decision-making and problem-solving in virtually all spheres — business, science, community development, government, politics — will depend on electronic networks that span national and cultural boundaries. Students whose schooling has given them a broad range of experience in using such networks for intercultural collaboration and critical thinking will be better prepared to thrive in this radically different communications and employment environment than those whose schooling has not provided access to cross-cultural awareness and problem-solving skills.

Prof. Sayers: Teachers and students participating in these global learning networks are clearly not engaged in trivial pen-pal activities; rather, they are conducting significant intercultural learning projects, such as joint surveys on drug abuse, homelessness, and teenage pregnancy in two communities, sharing and analyzing their results, and eventually publishing their findings in their local school or hometown newspapers. By opening their classrooms and their minds to experiences from other cultures, they are not turning their backs on their own. Rather, these students have become more aware of their own culture as a result of the contact they have experienced deeply with another.
Individuals with repetitive-stress disorders, including carpal-tunnel syndrome, represent one of the fastest-growing disability groups in the nation. A 1994 *New York Times* article states that over 282,000 cases have been reported nationally, but most ergonomics experts agree that the number is, in fact, much larger. This national trend is reflected in the growing number of students who seek assistance from NYU's Henry and Lucy Moses Center for Students with Disabilities. According to Jack Gentul, director of the center, "increasing numbers of individuals with repetitive stress injuries are attending the university; the number of para- and quadriplegics has also jumped significantly in the past two years." For this population, voice-recognition technology holds the key to independent access to computers, and this ability is essential for students to succeed at the university.

**Voice-Input Technology**

A few years ago, Bobst Library introduced a personal computer with voice input that was intended for users with disabilities. Requests for training have grown steadily over the last two years, but few users have been able to master this complex and fairly primitive system. This fall, the library is introducing a new voice-input system for the university's growing population of library users who have difficulty with regular computer keyboards. The library's first voice-input system had a vocabulary of only a few thousand words. By contrast, the new system, Dragon Dictate, provides a base vocabulary of 30,000 words.

Here's how it works: The Dragon Dictate user enters text and other computer commands into a high-quality, "hands-free" microphone. Dragon's online tutorial allows new users to learn about and customize the program simultaneously. Throughout the tutorial, users are asked to repeat certain words and phrases; Dragon Dictate compares the individual's unique speech patterns against word models stored in the program; powerful statistical and mathematical algorithms then analyze the phonetic...
features of the spoken word to determine if it matches one of the words stored in the program.

Dragon Dictate continues to refine its understanding of the individual user’s voice characteristics through continued use. The program also has some built-in features, including “smart number handling.” We generally pronounce the words two, too, and to in exactly the same way. Dragon’s powerful software contains rules of English usage that predict the correct form based upon context and probability. If, for whatever reason, the wrong word does appear on the screen, the user can simply say “Oops,” and a numbered list of the ten closest possibilities appears on the screen; from this list, the user simply states the number of the correct option and that word is substituted in the document.

For More Information
If you would like more information about adaptive technologies and services provided by NYU’s Henry and Lucy Moses Center for Students with Disabilities, contact Yolanda Cacciolo at 998-4976; the office is on the 7th floor of Loeb Student Center.

To make an appointment for a demonstration of Dragon Dictate or Bobst Library’s other special equipment for persons with visual, auditory, or motor impairments, please contact me at 998-2519.

GPO Access via Bobst Library
Now you can search and retrieve the following fulltext U.S. Government databases through Bobst Library and GPO Access using your ACF account:
- Congressional Bills (103rd, 104th Congresses)
- Congressional Record 1992-1995
- Federal Register 1994-1995
- General Accounting Office (GAO) Reports
- History of Bills 1994-1995
- Public Laws
- Unified Agenda 1994-1995
- United States Code

To search these using your ACF account, go to the Internet Services (IS) main menu, and choose 6 (Extras). Then choose GPO Access. At this point no further log-in is needed since you are already logged into your ACF account. Choose 3 (Hyper-help) for a complete search guide, which may be downloaded to your own directory.

These databases may also be searched using the CD-ROM workstations located in the Social Science and Business Reference Center on the 6th Floor of Bobst Library.

DIALOG Database Classes at Bobst
This year, the Library is continuing to offer access to DIALOG databases. In order to obtain a password, you must attend a DIALOG training session. Pre-registration is not required, but users must present their NYU photo-ID in order to participate. DIALOG training sessions are held in the Avery Fisher Center on the 2nd floor of Bobst at the following dates and times:

- Friday, September 22, 10-11:30 am
- Tuesday, October 3, 6-7:30 pm
- Friday, October 20, 10-11:30 am
- Friday, November 10, 10-11:30 am
- Monday, November 20, 6-7:30 pm
- Friday, December 8, 10-11:30 am

Where Are We, Toto? (continued from page 8)

A splendid feature of the Web protocol is that it embodies others: You can use a Web browser to explore Gopherspace, without necessarily being aware that you’re now using Gopher. Call for a file to be sent to you, and you’re suddenly using FTP. The process is not without hitches — it’s not perfectly seamless, connections can be refused because of overwhelming traffic, addresses have a maddening ability to go out of date as people change their directory structures. In most respects, the system works.

ACF HelpLine Q&A
Q: Last year I had an EMIS e-mail account on the ACFcluster.
I understand that these accounts were phased out with the end of the spring semester. Is there an NYU-Internet account waiting for me this semester?
A: No, there is not.

All remaining student EMIS accounts were discontinued as of June 15th. However, if you are a student in a degree or diploma program, you can simply go to any ACF computer lab and apply for an NYU-Internet account. If you are a staff or faculty member, you can apply for an NYU-Internet account at the ACF accounts office or the Help Center in Warren Weaver Hall.

— L. Barnett

Call the ACF HelpLine at 998-3333
All members of the NYU community are welcome at the ACF's classes, workshops, and talks. There is no charge for any of the ACF Instructional sessions, but participants should have a current, valid NYU ID. In some cases, as noted just after a course description, a reservation or an appropriate computer account is required.

Reservations: To reserve a place when required, please call the ACF HelpLine at 998-3333 during the week of the workshop or class.

Seating capacity: To avoid overcrowding, we have determined maximum seating capacities for each of our classrooms. This information is provided in instances where reservations are not required. We recommend that you arrive a few minutes early in order to secure a spot.

Classes by arrangement: Faculty members may sometimes arrange special classes for a specific course or research group. These do not necessarily have to be given at an ACF site. For classes in IBM WYLBUR or VM/CMS, call John Lee (998-3406); for statistics, call Frank LoPresti (998-3398); for other applications, call the ACF HelpLine (998-3333).

Computer accounts: There are several kinds of ACF accounts, which give the holder access to different types of machines and services. For further information, see the boxes on page 36.

— Vincent Doogan
doogan@nyu.edu

Vincent Doogan is the ACF Associate Director for User Services.

Index to the Schedule of ACF Instructional Sessions

- ABC's of Computers 29
- Choosing Your Computer 29
- Computers and Operating Systems 30
- E-Mail and Network Services 30
- Electronic Mail: Using Your ACF E-Mail Account 30
- Excel 33
- Exploring for Scientific Resources on the Internet 32
- Getting Started on Your New Computer 29
- Geographic Information Systems 32
- GIS: Geocoding for Census Data 32
- Graphics and Multimedia 32
- High-Performance Supercomputing Resources 33
- Image Scanning Using Photoshop 32
- Introduction to GIS Packages Available at the ACF 32
- Introduction to SAS 33
- Mathematica 32
- Microsoft Word 34
- News Groups and Gopher 31
- NYU-Net Software 30
- Scientific Computing and Visualization 32
- Scientific Visualization Resources at the ACF 32
- SPSS Running of the IBM RISC-based RS/6000 33
- SPSS: SPSS for Windows 33
- Statistics, Spreadsheets, and Databases 33
- Time Series Analysis 34
- Troubleshooting and Maintaining Your Mac 29
- Troubleshooting and Maintaining Your PC 29
- Uploading and Downloading Using Kermit 31
- Using a Mac at an ACF Lab 29
- Using a PC at an ACF Lab 29
- Using Unix at the ACF 30
- Using Unix: Special Topics 30
- Viewing of Scientific Visualization Videos, A Web Publishing Using HTML 31
- WordPerfect 34
- Wordprocessing 34
- World-Wide Web Browsing Tools 31
Choosing Your Computer
(Mac and PC)
This talk is intended to help you select the best personal computer for your needs. It will cover the basic components of a computer, as well as the other hardware required for various tasks. We will also discuss how you can assess your particular needs to establish your criteria for selecting computer tools. Taught by staff from the NYU Computer Store.

Seating capacity: 30; first come, first served; talk.
Warren Weaver Hall, room 313
Fridays 12:00-1:30
September 15

Troubleshooting and Maintaining Your Mac
(Mac)
Discussion will include troubleshooting techniques and other strategies for dealing with problems that you might encounter while using your Macintosh. Taught by staff from the NYU Computer Store.
Seating capacity: 30; first come, first served; talk.
Warren Weaver Hall, room 313
Fridays 12:00-1:30
October 20
November 10

Troubleshooting and Maintaining Your PC
(PC)
Discussion will include troubleshooting techniques and other strategies for dealing with problems you might encounter while using your PC. Taught by staff from the NYU Computer Store.
Seating capacity: 30; first come, first served; talk.
Warren Weaver Hall, room 313
Fridays 12:00-1:30
October 20
November 10

Using a Mac at an ACF Lab
(Mac)
A hands-on introduction to the Macintosh computer. Topics include working with the graphical user interface, understanding the file system, choosing printers, file servers, and other devices, and launching software applications. ACF staff.
Education Building, 2nd floor
Seating capacity: 25; first come, first served; hands-on class.
Tuesdays, Saturdays 11:00-12:00
September 12, 16, 19, 23
3rd Avenue No. Res. Hall, level C-3
Seating capacity: 15; first come, first served; hands-on class.
Mondays 11:00-12:00
September 11, 18, 25
Wednesdays 1:00-2:00
September 13, 20, 27

Using a PC at an ACF Lab
(PC)
A hands-on introduction to the PC — the "IBM-type" personal computer. Topics include working with the user menus on the PCs in the labs, understanding the file system, choosing printers and file servers, and launching software applications. ACF staff.
Tisch Hall, room LC8
Seating capacity: 25; first come, first served; hands-on class.
Saturdays 11:00-12:00
September 16, 23, 30
14 Washington Place, basement
Seating capacity: 15; first come, first served; hands-on class.
Thursdays 11:00-12:00
September 14, 21, 28
3rd Avenue No. Res. Hall, level C-3
Seating capacity: 15; first come, first served; hands-on class.
Mondays 1:00-2:00
September 11, 18, 25
Wednesdays 11:00-12:00
September 13, 20, 27

For More Information:
Call the ACF Help Line, 998-3333.
Using Unix at the ACF (Unix machines)
An introductory class on using the Unix operating system, variants of which run on several different classes of computer at the ACF. Most are accessed at ACF labs through PCs, Macs, and terminals, but the SGI workstations also use Unix. The basics will be covered: logging onto the host machines, organizing files, editing text, printing files, and using applications. See also Using Unix: Special Topics, under "Computers and Operating Systems". ACF staff.
ACF Unix account required.
Tisch Hall, room LC8
Seating capacity: 25; first come, first served; hands-on class.
Tuesdays 11:00-12:00
September 12, 19, 26
14 Washington Place, basement
Seating capacity: 15; first come, first served; hands-on class.
Fridays 1:00-2:00
September 15, 22, 29
Using Unix: Special Topics (Ultrix)
An intermediate talk on using the Unix operating system for those who have attended Using Unix at the ACF (see under "ABCs of Computers") or have equivalent knowledge. Topics include file permissions, path, aliases, pipes, redirect, filename completion, command substitution and a number of commonly used Unix utilities such as man, vi, and grep. David Ackerman.
Seating capacity: 30; first come, first served; talk.
Warren Weaver Hall, room 313
Wednesday 12:00-1:30
October 4
Electronic Mail: Using Your ACF E-Mail Account (Ultrix)
This talk-demonstration will introduce new and prospective holders of the NYU-Internet Account to its menu interface and components. Electronic mail concepts and commands will be explained and demonstrated. The account runs on ACF’s DEC minicomputers and is connected to NYU-NET and the worldwide Internet. Lisa Barnett and Vincent Doogan.
Warren Weaver Hall, room 101
Seating capacity: 75; first come, first served.
Fridays 12:00-1:30
September 15, 22
October 6
NYU-NET Software (Mac, Windows)
This talk is intended for those who have TCP/IP connections to NYU-NET from their office or home. The TCP/IP and PPP protocols will be discussed, and software based on these protocols will be demonstrated. The software to be discussed include: Eudora, Fetch, Turbo Gopher, Mosaic and Netscape. ACF staff.
Seating capacity: 30; first come, first served; talk.
Warren Weaver Hall, room 313
Wednesdays 12:00-1:30
October 18
November 1
NYU-NET Software (Mac, Windows)
This talk is intended for those who have TCP/IP connections to NYU-NET from their office or home. The TCP/IP and PPP protocols will be discussed, and software based on these protocols will be demonstrated. The software to be discussed include: Eudora, Fetch, Turbo Gopher, Mosaic and Netscape. ACF staff.
Seating capacity: 30; first come, first served; talk.
Warren Weaver Hall, room 313
Wednesdays 12:00-1:30
October 18
November 1
News Groups and Gopher (Ultrix)
A presentation of two Internet Services. News groups are special-interest discussion forums on the Internet, and Gopher is an information retrieval protocol in a menu format. Using the NYU-Internet Account, the speaker will introduce basic concepts and demonstrate the command sets of Gopher and Tin, a newsreader utility. ACF staff.
Seating capacity: 30; first come, first served; talk.
Warren Weaver Hall, room 313
Wednesday 12:00-1:30
October 11

Uploading & Downloading Using Kermit
A useful class for those who want to do their wordprocessing and other work on their desktop PCs or Macs, and then send the files by E-mail or upload them to VMS or Unix machines, or need to download files from distant machines to their own computers. Telnet, FTP, and Archie will be discussed. ACF staff.
Seating capacity: 30; first come, first served; Account is required; hands-on class.

1. For PC Users
Warren Weaver Hall, room 313
Wednesday 2:00-3:30
September 27

2. For Macintosh Users
Warren Weaver Hall, room 313
Wednesday 2:00-3:30
October 4

WEB Publishing Using HTML
The World-Wide Web is a Hypertext interface system for publishing documents containing text, sounds and images. These documents are browsed with software such as Netscape and Lynx. Hypertext Markup Language (HTML) is the mechanism for preparing homepages and other Web creations. ACF staff.
Seating capacity: 75; first come, first served; talk.

1. Putting Your Web Pages Online
An explanation of the general principles of World-Wide Web publishing, HTTP (Hypertext Transfer Protocol), and creating homepages on your NYU-Internet Account. Additionally, issues involving copyrights and fair use will be discussed.
Warren Weaver Hall, room 101
Fridays 12:00-1:30
October 13, 27

2. Introduction to HTML
Beginning with the basics of what a HTML file looks like, the speaker will explain the structure of a document and its HTML elements. Sample pages will be analyzed and constructed. Topics will include tags, links and URLs.
Warren Weaver Hall, room 101
Friday 12:00-1:30
October 20

3. Advanced HTML Topics
This session focuses on including images on your Web pages, and "image maps" will be explained. The do's and don'ts for writing and designing Web Pages will also be discussed.
Warren Weaver Hall, room 101
Friday 12:00-1:30
November 3

NYU Colloquia on Computers and Communications
A popular series of colloquia on uses of computers and communications is sponsored by the ACF and the Faculty of Arts and Science, with support from Apple Computers. Many colloquia are co-sponsored by additional departments. The colloquia are open to all NYU faculty, staff, and students. The fall series will be announced in NYU Events and on the NYU Web, and flyers will be mailed to all NYU faculty. To receive an e-mail flyer or to be added to the ACF's mailing list, call 998-3333 or send e-mail to document@nyu.edu.
Since 1993, all colloquia have been videotaped. Copies may be borrowed from the ACF (call 998-3036, or send e-mail to the above address).
**Geographic Information Systems**

**Introduction to GIS Packages Available at the ACF (Unix)**
A discussion describing and comparing the four Geographical Information Systems packages available at the ACF. These are ArcInfo, MapInfo, Atlas GIS, and GRASS.
Frank LoPresti.
*Seating capacity: 30; first come, first served; talk.*
Warren Weaver Hall, room 313
*Wednesday 2:00-3:30*
October 11

**GIS: Geocoding for Census Data**
Zvia Naphtali and Frank LoPresti.
Warren Weaver Hall, room 313
*Wednesday 2:00-3:30*
November 29

**Scientific Computing and Visualization**

**A Viewing of Scientific Visualization Videos**
A presentation of videos created at the ACF Scientific Visualization Lab, as well as a selection of videos previously presented at various conferences, such as ACM’s IEEE’s Visualization and SIGGRAPH and the Computational Geometry Conference. Featured videos will include “The Visible Human” and “The Largest Structures in the Universe.”
Estarose Wolfson.
*Seating capacity: 30; first come, first served; talk.*
Warren Weaver Hall, room 313
*Tuesday 2:00-3:30*
November 14

**Scientific Visualization Resources at the ACF (Silicon Graphics)**
The need to understand abstract and sometimes very large data sets generated from scientific studies is making scientific visualization more and more important. After a short introduction to the field, the lecturer will present an overview and hands-on multimedia demonstration of the various resources—software and equipment—available to scientists on the Silicon Graphics (SGI) computers at the ACF.

Topics discussed will include software packages for visualizing fluid dynamics, molecular models, volumes, and abstract mathematics; modular software packages; libraries for 2D and 3D graphics; image processing, movie, and audio; slide presentations; visual debugging and analysis of computer programs; online hypertext documentation; and conversion between image formats including PostScript and MPEG.

Additionally, the ACF’s stereographics equipment will be demonstrated in relation to both scientific visualization packages and solutions for the computer programmer. Estarose Wolfson.
*Seating capacity: 30; first come, first served; talk.*
Warren Weaver Hall, room 313
*Tuesday 2:00-3:30*
October 10

**Mathematica (Mac, PC, and Unix)**
Mathematica is a general system for doing many sorts of mathematical computations by computer. It can function as a calculator, programming language, or tool for scientific visualization in two or three dimensions.
Howard Fink.
*Seating capacity: 25; first come, first served; talk.*
Education Building, 2nd floor
*Friday 12:00-1:30*
October 6

**Exploring for Scientific Resources on the Internet (X-Terminals, SGI Irix)**
A discussion and practicum on how to gain access to available national and international science resources on the Internet, and a demonstration of how to locate and retrieve information from science-related information servers on the network.

Hands-on use of large-screen color X-terminals in the ACF Innovation Center, using the latest software, will provide a state-of-the-art multimedia interface to the resources.

Some of the servers that will be visited include the National Science Foundation’s Supercomputing Centers; Netlib, a repository of mathematical and statistical software and
publications; and the Computational Science Education Project (CSEP). A visit to servers on SUNET, the Swedish University Network, will include stops at the Karolinska Medical Institute and the Royal Institute of Technology. Edward Friedman. 

Seating capacity: 30; first come, first served; talk. Warren Weaver Hall, room 313 

Tuesday 2:00-3:30 

October 24

High-Performance Supercomputer Resources (IBM RISC cluster; SGI Challengers; NSF supercomputers) 

An introduction to supercomputer resources available to NYU faculty and students—both local resources and those accessible via the Internet. Local resources include a cluster of high-performance RISC-based RS/6000 workstations that has recently been acquired as part of a new Center for Applied Parallel Computing that the ACF, in collaboration with the IBM Corporation, has set-up at NYU. The discussion will cover the RISC farm’s intended uses and software, as well as the availability of additional resources for computationally intense applications. The speaker will then focus on the use, from NYU, of high-performance systems at the National Science Foundation supercomputing centers. NYU researchers and students have been given access via the Internet to these centers as well as to supercomputing centers operated by NASA and DOE. (A kit available from the ACF in room 305, Warren Weaver Hall, describes how to apply to some of the NSF centers.) Edward Friedman. 

Seating capacity: 30; first come, first served; talk. Warren Weaver Hall, room 313 

Tuesday 2:00-3:30 

September 26

Statistics, Spreadsheets, and Databases

Excel (Mac) 
Microsoft’s Excel is a major spreadsheet for the Macintosh. Howard Fink. 

1. Introduction to Excel 
This will be a start-up class on creating a basic spreadsheet. 

Reservations required (call 998-3333 during week of class); hands-on class. Education Building, 2nd floor 

Friday 12:00-1:30 

October 13

2. Advanced Topics in Excel 
In this advanced session, formulas and charting will be covered. Knowledge of Excel and Macintosh basics required. 

Reservations required (call 998-3333 during week of class); hands-on class. Education Building, 2nd floor 

Friday 12:00-1:30 

October 27

Introduction to SAS (PC, WYLBUR, CMS, and VMS) 
An introduction to the analyses offered by the software package. Discussion will include such topics as program structure, language syntax, data handling, and running programs written with the particular package. Robert Yaffee. 

Seating capacity: 30; first come, first served; talk. Warren Weaver Hall, room 313 

Wednesday 2:00-3:30 

September 20

SPSS: SPSS for Windows (PC, Unix, and WYLBUR) 
SPSS (Statistical Package for the Social Sciences) is a comprehensive, integrated system for statistical data analysis. While these hands-on presentations will use either the Windows or the newer Unix version of SPSS, the programming concepts are applicable to all versions of SPSS.

1. Introduction to SPSS 
Data input, transformations of variables, creation of “system files,” and other manipulations of data will be discussed. Frank LoPresti. 

Seating capacity: 30; first come, first served; hands-on class. Warren Weaver Hall, room 313 

Mondays 6:00-7:30 

September 18 
October 2 

Thursdays 6:00-7:30 

September 21 
October 12

2. Advanced Topics in SPSS 
Elementary statistical procedures for the analysis of data will be covered. Knowledge of SPSS and Windows basics required. Frank LoPresti 

Seating capacity: 30; first come, first served; hands-on class. Warren Weaver Hall, room 313 

Mondays 6:00-7:30 

September 25 
October 9 

Thursdays 6:00-7:30 

October 5, 19

SPSS Running on the IBM RISC-based RS/6000 at ACF (AIX) 
An introduction to SPSS running on a high-performance Unix resource available to NYU faculty and students. This is a Windows-like GUI (graphics users interface) version of

For More Information: 
Call the ACF HelpLine, 998-3333.
SPSS new at the ACF. Data and output are displayed in windows rather than through traditional command line mode. Such an application running in a Unix X-windows workstation environment holds interest for academic researchers whose storage, speed, and support needs are beyond the capabilities of a personal computing system. Frank LoPresti.

Seating capacity: 30; first come, first served; talk.

Warren Weaver Hall, room 313
Tuesday 2:00-3:30
September 19

Theory and Programming of Time Series Analysis (SAS, SPSS)
A series of talks on the theory behind time-series analysis and the practice of programming such analyses using SAS and SPSS. For details on the individual talk topics, please contact the speaker (see below). Robert Yaffee.

Reservations required (call Robert Yaffee at 998-3402 before September 27). All lectures will take place on Thursdays, 4:00-6:00, in room 313 of Warren Weaver Hall.

1. Introduction and the Nature of the Time Series
   October 5

2. ARIMA Components of the Time Series
   October 12

3. Modeling Strategy
   October 19

4. Analysis of Mixed (Regular and Seasonal) Models
   October 26

5. Impact Assessment and Transfer Functions
   November 2

6. Causal Modeling
   November 9

Wordprocessing

Microsoft Word (Mac)
Microsoft Word is a major word-processing program on Macintosh computers and is especially strong on typography and formatting.

1. Introduction to Microsoft Word
   This is a getting-started class. The basics of creating a document will be covered. Howard Fink.

   Reservations required (call 998-3333 during week of class); hands-on class.

   Education Building, 2nd floor
   Fridays 10:00-11:30
   September 29
   October 13
   November 3

2. Advanced Topics in Microsoft Word
   Topics will include mailmerge and tables. Knowledge of Microsoft Word and Macintosh basics required. Howard Fink.

   Reservations required (call 998-3333 during week of class); hands-on class.

   Education Building, 2nd floor
   Fridays 10:00-11:30
   October 6, 27
   November 10

WordPerfect (PC)
WordPerfect is the most widely used PC wordprocessing program, with many formatting features.

1. Introduction to WordPerfect
   The basics of creating a document in WordPerfect will be covered. Ed Nichols.

   Reservations required (call 998-3333 during week of workshop); hands-on workshop.

   Tisch Hall, room LC8
   Fridays 10:00-11:30
   September 22
   October 6

2. Intermediate WordPerfect
   More advanced topics in WordPerfect will be covered (footnotes, fonts, and search & replace). Knowledge of WordPerfect and PC basics required. Ed Nichols.

   Reservations required (call 998-3333 during week of workshop); hands-on workshop.

   Tisch Hall, room LC8
   Fridays 10:00-11:30
   September 22
   October 13

For More Information:
Call the ACF HelpLine, 998-3333.
Users of ACF facilities should be aware of the following dates and deadlines, when schedules change, accounts expire, and files must be stored. For schedules of the ACF facilities, see the back cover; for information on e-mail (NYU-Internet) accounts, and for general, individual, and class accounts, see page 36.

### September

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Sept. 1</td>
<td>New Individual Accounts and those renewed for the 1995/96 academic year begin.</td>
</tr>
<tr>
<td>Sept. 7</td>
<td>Fall Semester begins</td>
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<td>Sept. 25</td>
<td>Rosh Hashanah</td>
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<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Oct. 4</td>
<td>Yom Kippur</td>
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<tr>
<td>Oct. 9</td>
<td>Columbus Day</td>
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### October

<table>
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<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Nov. 7</td>
<td>Election Day</td>
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<tr>
<td>Nov. 11</td>
<td>Veterans' Day</td>
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<tr>
<td>Nov. 23</td>
<td>Thanksgiving Day</td>
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<tr>
<td>Nov. 23-26</td>
<td>Thanksgiving Day Weekend</td>
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### November

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<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Dec. 5 - Jan. 20</td>
<td>Instructors apply for Spring 1996 computer accounts for their classes.</td>
</tr>
<tr>
<td>Dec. 5-22</td>
<td>Students who expect Incompletes in fall semester courses should apply for computer account extensions. (Instructor's signature required.)</td>
</tr>
<tr>
<td>Dec. 15-21</td>
<td>Fall semester final examinations</td>
</tr>
<tr>
<td>Dec. 22</td>
<td>Student Class Accounts issued for the fall semester expire.</td>
</tr>
<tr>
<td>Dec. 22 - Jan. 2</td>
<td>Christmas* - New Year's* Recess</td>
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<tr>
<td>Dec. 22 - Jan. 20</td>
<td>Winter Recess</td>
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### December

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>Jan. 2</td>
<td>ACF offices reopen after Christmas-New Year's Recess</td>
</tr>
<tr>
<td>Jan. 13 - 14</td>
<td>Dr. Martin Luther King, Jr., Day Weekend</td>
</tr>
<tr>
<td>Jan. 15</td>
<td>Dr. Martin Luther King, Jr., Day</td>
</tr>
<tr>
<td>Jan. 22</td>
<td>Spring semester begins. Instructors, please apply for Spring 1996 Class Accounts if you have not already done so.</td>
</tr>
</tbody>
</table>

* University holiday  † Please note: Confirmed holiday schedules will be posted on the NYU Web and via our online news and bulletin-board facilities, or can be obtained by calling the ACF HelpLine at 998-3333.
Access to the ACF's Computer Labs

NYU faculty, staff, and students in degree or diploma programs may use the PCs and Macintoshes in the ACF's computer labs for limited hours without charge as general users. There is no application procedure; simply come to a lab with your NYU ID.

Obtaining an ACF Account

For priority access to the labs at all times, and to use most other ACF computers and special equipment, you will need to have an ACF priority account. There are two kinds. Faculty, staff, and students working on faculty-sponsored projects can obtain individual accounts. Instructors can obtain class accounts that cover all the students in a course section. To apply for a priority account, please contact the ACF Accounts Office (room 305 Warren Weaver Hall, 998-3035). For hours and availability to general users and to holders of priority accounts, see opposite.

The ACF recommends that instructors obtain an ACF Class Account whenever a course requires students to use computers. These accounts give students priority access to ACF computers, and the application procedure helps the ACF to ensure that the appropriate software and training sessions are available.

Getting an NYU-Internet Account...

ACF's NYU-Internet accounts provide e-mail connectivity and network access from your desktop computer to information resources at NYU and around the world.

NYU-Internet accounts are available to all NYU faculty, research staff, and administrators, and to all students enrolled in degree or diploma programs. Simply apply at any ACF computer lab (see opposite for locations and hours). And, if you are unfamiliar with e-mail and network use, ACF classes and pamphlets will help you get started.

Faculty and staff members, if they prefer, may request NYU-Internet accounts by letter. Please use departmental letterhead with the department's address and phone number, and include your name, title, NYU ID number, and campus address and phone number. Send your request to the Academic Computing Facility Accounts Office, room 305, Warren Weaver Hall. For more information, contact the ACF Accounts Office at 998-3035.

At the Labs in Fall '95

The ACF's four instructional computer labs have over 340 Apple and IBM-type computers. All are linked to NYU-NET, the campus data network, and are connected to Novell-based file servers and printers. Each lab has two or more laser printers. A large collection of software (over 100 packages) is available. For hours, see opposite page.

Education Building, 2nd floor (100 computers)

• 32 PowerMac 6100 computers with CD-ROM drives and color monitors
• 22 PowerMac 6100 AV computers with CD-ROM drives, 24 MB of memory, 250-MB hard drives, 270-MB Syquest drives, and 17-in multiscan monitors
• 21 Macintosh Quadra 700 computers with 20 MB of memory, 80-MB hard drives, and 16-in color monitors
• 2 Macintosh Quadra 800 computers with CD-ROM drives and color monitors
• Plus 14 Macintosh systems in the New Media Center dedicated to special projects and classes in the arts

Third Avenue North Residence Hall, basement (109 computers)

• 25 IBM-type computers with VGA color monitors
• 10 DEC 486 computers with 8 MB of memory, 120-MB hard drives, and color monitors
• 18 Gateway 486DX2 computers with 16 MB memory, 330-MB hard drives, and 15-in color monitors
• 36 Macintosh Ilis computers with color monitors
• 16 Macintosh Ilis computers with 17-MB memory and color monitors

Tisch Hall, Room LC-8 (74 computers)

• 1 IBM-type computer with Accent Text-to-Speech Synthesizer, Vocal-Eyes Screen Navigation Software, and Zoom-Text Screen Magnification Software
• 47 IBM PS/2, 555SX, with VGA color monitors
• 24 Gateway 486DX2 computers with CD-ROM drives, 5.25-in and 3.5-inch diskette drives, 340-MB hard drives, and 15-in color monitors

14 Washington Place (62 computers)

• 22 DEC 486 computers with 486DX processors, 8 MB of memory, 120-MB hard drives, and color monitors
• 6 Gateway 2000 computers with 486 processors, 8 MB of memory, and Super-VGA color monitors
• 33 IBM PS/2 computers, model 70, with VGA color monitors; 25 with numeric processors and joysticks
**Important ACF Telephone Numbers**

ACF HelpLine 998-3333  
Account Information 998-3035  
Computer Documentation 998-3036  
Innovation Center 998-3044  
Statistical Consultants 998-3434  
14 Washington Place Lab 998-3457  
Education Building Lab 998-3421  
Third Avenue Lab 998-3500  
Tisch Hall Lab 998-3409  
Warren Weaver Hall (rooms) 998-3456

**Dial-in Access to ACF Computers**

To connect via modem to NYU-NET, NYU’s campuswide network, set your modem to 8 data bits, 1 stop bit, full duplex, no parity, and dial one of these numbers.

<table>
<thead>
<tr>
<th>Modem Speed (bps)</th>
<th>Dial</th>
</tr>
</thead>
<tbody>
<tr>
<td>300-2400</td>
<td>995-3600</td>
</tr>
<tr>
<td>9600, 14,400</td>
<td>995-4343</td>
</tr>
<tr>
<td>300-1200</td>
<td>995-4335*</td>
</tr>
<tr>
<td>PPP only</td>
<td>995-4242</td>
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</table>

*Use this number if you have an older modem with no error-correction.

**For More Information:**

Visit us on the World-Wide Web at [http://www.nyu.edu/acf/](http://www.nyu.edu/acf/)

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**Fall Hours at the ACF:**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14 Washington Place*</td>
<td>closed</td>
<td>8:30 am – 11:30 pm</td>
<td>8:30 am – 11:30 pm</td>
<td>8:30 am – 5:30 pm</td>
</tr>
<tr>
<td>Tisch Hall*</td>
<td>closed</td>
<td>8:30 am – 11:30 pm</td>
<td>8:30 am – 11:30 pm</td>
<td>8:30 am – 5:30 pm</td>
</tr>
<tr>
<td>Education Building*</td>
<td>closed</td>
<td>8:30 am – 11:30 pm</td>
<td>8:30 am – 11:30 pm</td>
<td>8:30 am – 5:30 pm</td>
</tr>
<tr>
<td>Third Ave. North</td>
<td>10:30 am – 1:30 am</td>
<td>10:30 am – 1:30 am</td>
<td>10:30 am – 5:30 pm</td>
<td>10:30 am – 5:30 pm</td>
</tr>
<tr>
<td>Innovation Center</td>
<td>closed</td>
<td>9:00 pm – 10:00 pm</td>
<td>9:00 pm – 10:00 pm</td>
<td>closed</td>
</tr>
<tr>
<td>HelpCenter</td>
<td>closed</td>
<td>9:00 am – 6:00 pm</td>
<td>9:00 am – 6:00 pm</td>
<td>closed</td>
</tr>
</tbody>
</table>

*Open to general users from 8:30 am to 1:00 pm, Mon. through Fri., and to priority access account holders during all hours of operation.

**Exceptions to regular hours:** Confirmed Holiday schedules at the labs will be posted via the NYU Web, and on our online news and bulletin-board facilities. ACF offices in Warren Weaver Hall are closed on University holidays.

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**ACF locations:**

1. The HelpCenter, 251 Mercer St., 2nd floor; and The Innovation Center, 251 Mercer St., 2nd floor
2. Tisch Hall computer lab, 40 W. 4th St., lower concourse (rooms LC-7 and LC-8)
3. 14 Washington Place computer lab, basement
4. Education Building computer lab, 35 W. 4th St., 2nd floor
5. Third Avenue computer lab, 75 Third Ave., level C3

(Check the NYU Info Center for the Shuttle service schedule.)
Connect

<table>
<thead>
<tr>
<th>From the Director</th>
<th>Fall 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surf's Up!</td>
<td>21</td>
</tr>
<tr>
<td>(And So Are the Costs of Surfing)</td>
<td>1</td>
</tr>
<tr>
<td>Statistics &amp; the Social Sciences</td>
<td>22</td>
</tr>
<tr>
<td>Snaring Statistics from the Web: A Social Scientists' Introduction</td>
<td>22</td>
</tr>
<tr>
<td>Some Useful Web Sites for Social Scientists</td>
<td>23</td>
</tr>
<tr>
<td>NYU on the World-Wide Web</td>
<td>3</td>
</tr>
<tr>
<td>NYU Web: The Global University Goes World-Wide Web</td>
<td>3</td>
</tr>
<tr>
<td>New Media Center Web Gallery</td>
<td>5</td>
</tr>
<tr>
<td>What Does a URL Do on the Web?</td>
<td>5</td>
</tr>
<tr>
<td>Where Are We Now? On the Internet?</td>
<td>6</td>
</tr>
<tr>
<td>On the Web? In Gopherspace?</td>
<td>6</td>
</tr>
<tr>
<td>Alphabet Soup: A Guide to Web Terms</td>
<td>7</td>
</tr>
<tr>
<td>Is Netscape for You?</td>
<td>8</td>
</tr>
<tr>
<td>NYU Computer Store</td>
<td>24</td>
</tr>
<tr>
<td>More Services at Expanded Site: Equipment, Financing, Repairs, Books</td>
<td>24</td>
</tr>
<tr>
<td>Networks</td>
<td>9</td>
</tr>
<tr>
<td>High-Speed Modems to Offer Better Access to NYU-NET and the Web</td>
<td>9</td>
</tr>
<tr>
<td>Should You Use a Commercial Internet Service Provider?</td>
<td>10</td>
</tr>
<tr>
<td>Shortcuts on the Info Hiway...</td>
<td>10</td>
</tr>
<tr>
<td>Network Bookbytes: Silicon Snake Oil and Being Netscape for You?</td>
<td>11</td>
</tr>
<tr>
<td>Instructional Computing</td>
<td>15</td>
</tr>
<tr>
<td>School of Ed and ACF</td>
<td>15</td>
</tr>
<tr>
<td>Host New York High-Schoolers</td>
<td>15</td>
</tr>
<tr>
<td>New Fall Colloquia: Teaching with the Internet, Authoring CDs, and More</td>
<td>16</td>
</tr>
<tr>
<td>Garbage in Gotham: Enter(ing) the Trashless Classroom</td>
<td>17</td>
</tr>
<tr>
<td>Instructional Bookbytes: Brave New Schools</td>
<td>18</td>
</tr>
<tr>
<td>The Digital Arts</td>
<td>20</td>
</tr>
<tr>
<td>New Software for Artists at the ACF: Facilitating Creativity</td>
<td>20</td>
</tr>
<tr>
<td>ACF Helpline Q &amp; A</td>
<td>2</td>
</tr>
<tr>
<td>Summer E-mail</td>
<td>2</td>
</tr>
<tr>
<td>E-mail and ACFcluster Accounts</td>
<td>27</td>
</tr>
</tbody>
</table>

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The Internet that was: last year the NSF backbone spanned the US; now the structure is more complex. See page 6.