UNIVERSITY OF MINNESOTA

Office of Information Technology

What is available through the Web?

- **On Google** every day there are an estimated 130 million searches.
- **Worldwide**, Global-reach.biz estimates 762 million people will use the Internet in 2003. Only a little over 40% of the sites are in the English language.
- **The "surface" Web** consists of approximately 2.5 billion documents, up from 1 billion pages at the beginning of the year, with a rate of growth of 7.3 million pages per day.
- **An estimated 550 billion** Web-connected documents, with an average page size of 14KB, are part of the collectively known "deep" Web—that is, if you consider all Web-accessible info, such as Web-connected databases, dynamic pages, intranet sites, etc. 95% of this information is publicly accessible.
- **Email** is one of the most widespread ways of communication in today's society. A white-collar worker receives about 40 email messages in his office every day. Aggregately, based on different estimates, there will be from 610 to 1100 billion messages sent this year alone.
- **Web conferencing** generated $266 million in revenue in 2001, according to Frost & Sullivan, and could reach $2 billion by 2008.
- **59 million Americans** are estimated to be online on a average day (2002).

Nancy Herther, University Libraries

Information Technology

Newsletter

New Era, New Procedures

Wireless here, there, nearly everywhere

More students, departments and work groups find they need mobile computer solutions, including PDAs (personal digital assistants), to meet their study, work and research requirements. To meet these needs they are taking advantage of the growing number of wireless resources on campus. Some departments are setting up their own wireless networks for convenience, freedom and, in some cases, for cost savings. For some time now the Office of Information Technology (OIT) has been installing and supporting wireless access points in public spaces and equipping the laptops that are part of our rental program with wireless PCI cards.

Current drawback

One drawback to this increased mobility is its openness. Under the current setup, once someone has a properly configured wireless computer, they have access to University electronic resources regardless of whether they have an active University Internet account.

To improve security and better manage University resources, this summer OIT will begin to require that wireless users enter their Internet ID (also called X.500 username) and password before they can access the wireless network (Figure 1). This change follows University guidelines; for more information see "User Authentication for Access to University Resources," Policy 2.8.2: http://www.fpd.finop.umn.edu/groups/ppd/documents/policy/x500pol.cfm.

New sign on requirement

The wireless authentication procedure will be implemented May 28, 2002, in the Wilson and Walter libraries, followed in June by the Communications Kiosks that have wireless access.

Since the Office of Information Technology is committed to creating a common, secure Twin Cities campus user experience for wireless network access, we plan to make the procedures University-wide for OIT managed wireless resources this fall. Many departments also welcome this move to an environment that will enable their faculty, staff and students to continue their work and research as they move indoors and outdoors around the Twin Cities campus. Accordingly, many departments will register the wireless access points they set up, reserving the right to restrict access to selected resources.

Under this improved service you should remain logged in even as you move from one wireless access point to another; and you will remain logged in until the wireless service senses there has been an extended period of inactivity.

How will it work?

The wireless sign-on process is quick and easy, provided you have a suitably configured computer. To get access:

1. Start up a Web browser.
2. Access any Web page, such as http://onestop.umn.edu (this step works as long as the Web page is not served up/hosted on your own computer).
3. Wait briefly while you are automatically redirected to the Wireless Network Login page (Figure 1).
4. Enter your Internet ID (X.500 username) and password.

That's it.

Online guides; hardware recommendations

We have installation guides online that will step you through configuring your computer for wireless access. We also have hardware recommendations; it's not wise to purchase a card on price alone. We have found that some cards perform poorly and are difficult and time-consuming to set up.

Techmart's "smart buy" section features the Orinoco PC Gold card from Unique for $79; the Orinoco suite of products builds on Lucent's WaveLAN wireless LAN technology: http://techmart.umn.edu

Base stations

As more departments set up wireless access, it becomes more likely that their access points will be close to another wireless setup, causing conflicts. The single authentication (sign on) procedure will also solve this conflict.

Figure 1: You must be authenticated to use the wireless network.

UNIVERSITY OF MINNESOTA

Wireless Network Login

Security Warning

Information going through the air over wireless connections can be intercepted and read by others. Wireless networking should be limited to casual web browsing unless encryption is used to protect private information or sensitive data such as credit card information, passwords (including email passwords) or social security numbers. *More information on how to protect yourself.*

For assistance, call:
Crookston:
 (218) 281-8000
Duluth:
 (218) 726-8847
Morris:
 (320) 589-6391
Twin Cities:
 (612) 301-4357
(1-HELP)

Authenticate

In order to access the University of Minnesota Wireless Network, enter your University of Minnesota Internet ID (X.500 username) and password:

Internet ID: [   ] Password: [   ] [Login]

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The University of Minnesota is an equal opportunity educator and employer.

Responsibilities

Inconsistently, casually or poorly managed and secured networks are potential threats to the University and a drain on University resources.

If you run a base station for yourself or a workgroup, you are responsible for a network that is attached to the campus wired network; and you must be sure that your wireless implementation is secure—for example, that it employs wireless network authentication, end user and client workstation identification and base station/access point location information.

This summer, you will find customer owned and operated access-point/base-station hardware recommendations, configuration requirements and registration guidelines online at the Wireless page: http://www.umn.edu/wireless
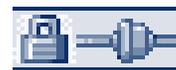
Security considerations

Information going through the air over wireless connections can be intercepted and read by others. Never send sensitive data such as credit card information, passwords or social security numbers over a wireless connection unless it is protected by encryption.

Using email software that supports SSL (Secure Socket Layer) and enabling that feature is one form of protection.

Web pages can also be protected by SSL; protected pages are identified by an "s" at the end of http. Besides looking for https, you can tell if a Web page is secure by looking for a closed lock in the lower left corner (Figure 2). Web pages without the "https" or with an open lock are not encrypted. Examples of protected pages include https://myonestop.umn.edu/

You can also use a Virtual Private Network (VPN) secure tunnel. VPN is a solution Networking and Telecommunications has been testing for some time. To make it easier for a wider range of users to use VPN, we are updating the online VPN guides and training 1-Help Technology Helpline staff.

The University's Webmail Pro is secure; it uses SSL and its outgoing mail is sent via a secure relay.

Webmail Pro

The University's Webmail Pro is secure; it uses SSL and its outgoing mail is sent via a secure relay. Webmail Pro is available as a link on all Communications Kiosks and from this Web page: http://www.mail.umn.edu

Accessing different wireless networks

If you use your laptop in multiple environments, such as a wireless home environment and on campus, you may need to reconfigure your computer's network settings when you switch between environments.

NAT (Network Address Translation)

One difference between the University's Wireless Service and many home setups is NAT (Network Address Translation), a wireless base station feature designed for use in homes. NAT is incompatible with the DHCP pass-through requirement for authenticated access to wireless services at the University.

To make switching (and troubleshooting) between network environments easier, keep track of the different settings.

More information

We are expanding and updating our wireless pages. Look for more step-by-step procedures and information online at: http://www.umn.edu/wireless

For even more wireless information, click on the "wireless services" link in the banner at the top of the page.

■ Material for this article provided by Bernard Gulachek, Peter Oberg, Ken Hanna, Mary Kelleher
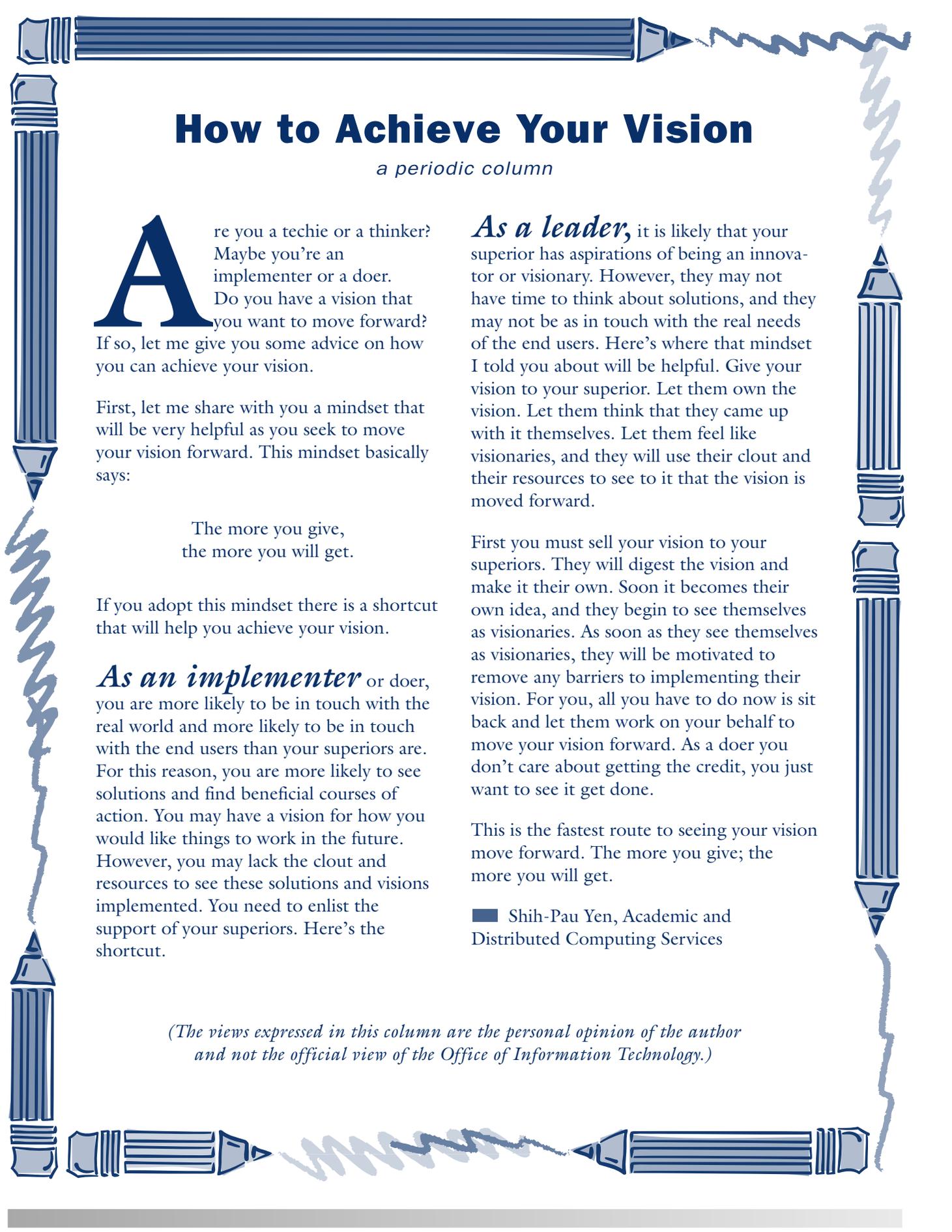
How to Achieve Your Vision

a periodic column

Are you a techie or a thinker? Maybe you're an implementer or a doer. Do you have a vision that you want to move forward? If so, let me give you some advice on how you can achieve your vision.

First, let me share with you a mindset that will be very helpful as you seek to move your vision forward. This mindset basically says:

> The more you give,
> the more you will get.

If you adopt this mindset there is a shortcut that will help you achieve your vision.

As an implementer or doer,

you are more likely to be in touch with the real world and more likely to be in touch with the end users than your superiors are. For this reason, you are more likely to see solutions and find beneficial courses of action. You may have a vision for how you would like things to work in the future. However, you may lack the clout and resources to see these solutions and visions implemented. You need to enlist the support of your superiors. Here's the shortcut.

As a leader,

it is likely that your superior has aspirations of being an innovator or visionary. However, they may not have time to think about solutions, and they may not be as in touch with the real needs of the end users. Here's where that mindset I told you about will be helpful. Give your vision to your superior. Let them own the vision. Let them think that they came up with it themselves. Let them feel like visionaries, and they will use their clout and their resources to see to it that the vision is moved forward.

First you must sell your vision to your superiors. They will digest the vision and make it their own. Soon it becomes their own idea, and they begin to see themselves as visionaries. As soon as they see themselves as visionaries, they will be motivated to remove any barriers to implementing their vision. For you, all you have to do now is sit back and let them work on your behalf to move your vision forward. As a doer you don't care about getting the credit, you just want to see it get done.

This is the fastest route to seeing your vision move forward. The more you give; the more you will get.

■ Shih-Pau Yen, Academic and Distributed Computing Services

(The views expressed in this column are the personal opinion of the author and not the official view of the Office of Information Technology.)

Don't Get Stuck on the Web

Nancy K. Herther, University Libraries, http://www.lib.umn.edu

Just as the hapless fly can be hopelessly lost in the sticky spider's web, so too people often find themselves stuck when using the human equivalent: the World-Wide Web. If only we had a Web version of "highway helper" to save us from some of the worst, yet most common, maladies.

▼ A victim of your own success

Ever done a Google or other Web search and come up with a few million hits? When faced with that haystack, while in search of a needle, what is your response? Studies indicate that many will just leap in and go through the first few screens and hope for the best. Recently a researcher told me his variation of this: to go down to the third or fourth screen (in case sites may have paid for placement on the Web) and start there. But what if the information you need is on the first page or the tenth?

▼ Spinning your wheels at broadband speed

Another approach sometimes used here on campus has been to work at the front end, hoping to find the right terms, the right phrasing, to find the mother lode – the five, ten, twenty or whatever "perfect" sites for your purposes. The problem comes when you never get beyond the search screen to actually viewing sites.

▼ Lost in cyberspace

Links can be wonderful, or they can leave you at the wrong bus stop on your trip through cyberspace. Few sites could ever guarantee the veracity of other Web sites that they might list. Heading too far down this path in search for information may lead you astray.

▼ Addiction: surf 'til you drop

When you look at the time that some people spend on the Web each day, you can only wish that they are able to strike a reasonable balance in their lives. In fact, Relate, the British support group, recently announced research that found "10% of the 90,000 couples who seek its help today cite the Internet as the troublesome third party in their marriages."

Who you gonna call?

If you need help in navigating the Web, remember the wonderful resources available here on campus through the University Libraries. The Web has become a major tool in the Libraries for finding, displaying, storing and accessing information. Let's take a quick tour of some of these resources.

▼ MNCAT®

This summer our online catalog of holdings is changing. However, it has been evolving as a core tool for

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Library bookmarks no longer working?

Have you recently experienced problems connecting to a library database or e-journal from a bookmark?

Many URL changes

The Libraries recently changed numerous URLs to require all remote users to log in with a University Internet ID and password to access licensed electronic resources. This change is prompted by contractual obligations to limit

remote access to current U of M students, faculty and staff.

To ensure that you are always using the current URL, the Libraries recommend that you connect to databases and e-journals through LUMINA, the Libraries' Website, or the MNCAT catalog.

Public access

Members of the public are welcome to use the University of Minnesota

Libraries' electronic resources "on-site." Use of the University Libraries on-site does not require a card or pass; however, most of our electronic resources and services *off-site* are available *only* to current students, staff and faculty of the U of M Twin Cities campus.

■ Jim Stemper, Collection Development and Management, University Libraries

many years. MNCAT now includes tens of thousands of links — imbedded in the MNCAT records themselves — to e-journals, e-books and other key resources. If you haven't checked it out lately, give it a look: http://www.lib.umn.edu

Or check out some of the special series of Unravel workshops offered freely by Libraries staff throughout the year. To get some hands-on guided assistance, check out the full schedule of workshops, which is constantly changed and update, at: http://www.lib.umn.edu/registration/

▼ **ResearchGuides**

From our main Web page, select **ResearchGuides**, and you will find a wonderful collection of guides to the collections of the libraries, subject guides to help you research everything from Aerospace Engineering to Zoology, from Art to Yugoslavia Area Studies. Each guide will give you lists of the *best* Web sites, databases, books and journals to study the subject.

▼ **QuickStudy: Library Research Guide**

QuickStudy is an award-winning self-paced tutorial to help as you initiate the research process. Whether you need to know the difference between a scholarly and popular article, how to cite a Website or help using specific online databases, this resource is available free, online, 24-7: http://tutorial.lib.umn.edu/

▼ **ReferenceSources**

From our main Web page, select **ReferenceSources**, and you can enter a world of carefully chosen Web-based tools for doing all of your work here on campus. From dictionaries to style manuals to maps to phone books and college catalogs, you will find quick links to the best of the Web at this site.

Reference 24-7: Ask Us!

Also available through our main Web page, Ask Us! is an option to submit a reference question over the Web and receive an answer in hours. Questions are answered by librarians and specialists from all areas of the University Libraries. We also offer limited Chat (real time, interactive) reference sessions through our Web page. For information on this important new service, check out Ask Us Live at this site: http://infopoint.lib.umn.edu/ask-us-live.phtml

The Libraries have many qualified, approachable librarians available to help you – in person or by phone – with your research questions. We all spend hours working online each week and are happy to share our experiences, successes and methods with you! Just give us a call or stop in at any reference desk for assistance!

And that's just the start!

Did you know that the Libraries has a Digital Projects unit which is busy creating Web-based collections and resources? Or have you checked out the Website for any of our library units. From the Ames Library of South Asia to the Owen H. Wangensteen Historical Library of Biology and Medicine and everywhere in between, staff have worked to create wonderful Websites with thousands of links to the best of the Web, as well as the best of our Libraries. Take a quick look, and you will be amazed!

So next time you feel your time robbed, your energy sapped or your enthusiasm dampened by the Web, remember perhaps your best tonic in the information pharmacopia: the University Libraries, your portal to the best, the best in print, online and on the Web.

◼ Communications about this column should be addressed to: Nancy K. Herther, Social Sciences Bibliographer, 170b Wilson Library, West Bank; 612-624-2020, n-hert@umn.edu.

Tidbits

MNCAT: Internet-based resources added to MNCAT, 1991-2001, by year and number of records:

1991 393	1996 1,696
1992 583	1997 3,141
1993 724	1998 3,050
1994 957	1999 3,147
1995 .. 1,260	2000 3,670
	2001 3,448

• **The world produces** between 1 and 2 exabytes of unique information per year, which is roughly 250 megabytes for every man, woman and child on earth. (An exabyte is a billion gigabytes, or 1018 bytes.) Printed documents of all kinds comprise only .003% of the total.

• **Magnetic storage** is by far the largest medium for storing information and is the most rapidly growing, with shipped hard drive capacity doubling every year; it is rapidly becoming the universal medium for information storage.

• **On printed media worldwide** each year, approximately 240 terabytes (compressed) of unique data are recorded, which includes books, newspapers, magazines, etc.

New, Upcoming Library Catalog!

Over 100 Libraries and OIT (Office of Information Technology) staff are busy behind the scenes with the functional and technical issues that go into customizing a new online system for the University Libraries. This new system affects almost every aspect of the processes the libraries undergoes daily. By the time you, the public, use the new MNCAT®, almost everyone in the library system will have assisted with the conversion or undergone extensive training to use it. The University of Minnesota, along with many other libraries in the state, is using the same basic system as such schools as the University of Iowa, Boston College, McGill University (Canada), SUNY Binghamton and the University of Notre Dame. Many other universities are also migrating their systems, including Harvard, University of Maryland, University of Delaware, the California Digital Library system and the Florida public higher education system.

Top reasons to love the new MNCAT

1. Access to your library account which includes the list of items you have checked out; the ability to renew these items, access to library fees/fines you might owe and the ability to place and review your hold requests.
2. Improved Advanced Search with increased options for limiting to material types such as music scores and government publications.
3. New search pages designed for specific materials (that is, a journals search page and a conference proceedings search page).
4. Ability to limit a search to the collections of a specific library (i.e., Law Library, Science and Engineering Library).
5. Ability to browse MNCAT resources alphabetically by author, title, subjects and call numbers.

6. Ability to use an option called "Command Searching" which allows you to use a coding system similar to the one used in the telnet version of the library catalog. (The Telnet/TN3270 version will be unavailable starting July 1, 2002.)

Service disruptions

Due to the mounting of our new online catalog, there will be some minimal disruption in certain library services between May 18 and July 1, 2002:

- **The Telnet/TN3270** version will be unavailable beginning July 1, 2002,
- **New title orders** generally will not be processed until after July 1st.
- **Recalls** will not be placed from June 1 until July 1. This includes recalls for reserve materials.
- **Reserve items** may not show in the system during this transition. Students should check at the Reserve Desk.
- **Books stored in MLAC** (the Minnesota Library Access Center) will not be delivered to another library from June 23 to July 1. During this time you can continue to request materials from MLAC; however, materials must be accessed at MLAC in Andersen Library.
- **Point-to-Point** will be unavailable June 23 to July 1.

Questions? Concerns?

If you have any questions, please feel free to speak with any Libraries staff member. All reference staff will receive advanced training and can help you as you work with the new catalog. We will be offering training sessions throughout fall semester that will be open to everyone here on campus. For more information contact: Jerilyn Veldof, jveldof@umn.edu, 612-624-1529. The contact for the Law Library is Mary Rumsey, rumse006@umn.edu, 612-635-2905.

■ Nancy Herther, University Libraries

Need help understanding the new MNCAT?
- Tips and help pages will be embedded in the new MNCAT as much as possible.
- The "Finding Books" module of QuickStudy, the Libraries online tutorial, will be updated to include MNCAT.
- This fall the Libraries will offer MNCAT workshops; check the workshop registration site in August and September.
- Librarians are also available for one-on-one assistance for faculty and for customized workshops for classes of students. Just ask us for the name of your library liaison.

What can faculty do to help?
- Return your library books by June 23.
- Get your summer session reserve readings in before June 1 if possible.
- Remind your students to check for their reserves at the Reserve Desk since these items may not be reflected in MNCAT before July 1.
- If you anticipate needing books delivered from MLAC or through Point-to-Point, please make your request(s) before June 23 or after July 1.

▼ Help   Phone: Area Code = 612

Computer Misuse or Abuse (also see Procedure 2.8.1.1)
- • Emergency Network Help Line 625-0006
- • Non-emergency, e.g., spamming: abuse@umn.edu

1–HELP •24/7 unless otherwise noted 612-301-4357

Dial 1-HELP. Listen to the voice menu list of options.
Press the number of your desired option.

- • Technology Help: http://www.umn.edu/adcs/help
- ■ Passwords: new and forgotten ones
- ■ CCO Central systems, PeopleSoft
  - • by email: x-help@umn.edu
- ■ Internet, Email, Microcomputers
  - • call-in Monday–Thursday • 8 am–11 pm
  - • call-in Friday • 8 am–5 pm
  - • call-in Saturday • noon–5 pm
  - • call-in Sunday • 5 pm–11 pm
  - • walk-in 8 am–5 pm, M–F:
    152 Shepherd Labs; 93 Blegen Hall; 50 Coffey Hall
  - • by email: help@umn.edu
- ■ Networking and Telecommunications Services: NTS
  - • by email: help@umn.edu

▼ Dial-in Computer Access

Internet/PPP/SLIP: up to 53kps if v.90 612-627-4250
(56k K-flex, Flex56, X.2 protocols are unsupported)

▼ Quick Guide

Modem Usage (current activity on your account)
http://www.nts.umn.edu/services/modemusage.html

Internet/Email account management/validation
http://www.umn.edu/validate

MNCAT/LUMINA (Library) – http://www.lib.umn.edu

Office of Information Technology
http://www.umn.edu/oit

Onestop Services – http://onestop.umn.edu

TechMart – http://www.techmart.umn.edu

Technology Training Center
http://www.umn.edu/adcs/info/training.html

UM News Servers – news.tc.umn.edu, news.umn.edu

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Threats, UM Police Department ....911 on campus
- • off campus... 624-3550

Computer Accommodation Program – voice/tty... 626-0365
U Computer Services/Computer Repair Serv 624-4800
Statistical Software Support:
    including SAS and SPSS 624-3330

Associate Vice President and
Chief Information Officer, Steve Cawley 612-625-8855

Newsletter subsciption information and archives at http://www.umn.edu/oit/newsletter

Twin Cities campus address label trivia: the 2nd number after the Rec# is the Campus Mail delivery code, http://umn.edu/lookup

If you cancel or change a campus
address, please tell us the **Rec#.**
Just tear off the end page and
send the entire mailing label to
us. Or send email to:
oitnsltr@umn.edu

- ☐ *Add*
- ☐ *Change Other*
- ☐ *Change Address*
- ☐ *Change Name*
- ☐ *Delete/Cancel*

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