

# MIAIMS INFO SPHERE

Missouri Integrated Advanced Information Management System  
Health Sciences Center, University of Missouri - Columbia

No. 11

Mar/Apr 1996

## The Web and . . . . . . Education

The Web is changing the way students learn. From multimedia curricula to searching the Internet for resources, students and instructors are racing to keep up with the technology - and loving it. During a recent open house of the Health Science Center's Digital Media Center, a number of educational pieces were demonstrated using the Web. Drs. David Witten and Terry Elwing showed their Introduction to Patient Care Overview of Breast Imaging module, which is part of the medical school Problems Based Learning (PBL) curriculum. Another segment of the PBL, Dr. Thomas Eppright's Psychiatry case was also demonstrated. In addition, a chapter on Conduct Disorder, part of Dr. Arshad Husain's Teachers as Therapists project was available.

Recently the School of Health Related Professions went online with a project called the Virtual Health Care Team (<http://www.hsc.missouri.edu/shrp/docs/vhc.html>). The project brings interdisciplinary case studies to the World Wide Web, focusing on the role of each health discipline in the diagnosis and treatment of patients in various practice settings.

Another Web project at the School of Health Related Professions aims to help practitioners locate the information they need. RC-Web (<http://www.hsc.missouri.edu/shrp/rtwww/rcweb/docs/rcweb.html>), the brainchild of Mike Prewitt, assistant professor and director of the Respiratory Care Program, is an index of respiratory care topics that are located on the Web. Now students and practitioners looking for information about topics such as sleep apnea or hyperbaric oxygen therapy can simply go to RC-Web and click on the desired topic.

Another hot area is the availability of CME credits via the Web. Dr. Tom Selva, assistant professor in Child Health is developing case studies that physicians can access for CME credits. Other Web sites are being developed throughout the country to offer continuing education opportunities right from the desktop.

For assistance in creating Web-based curricula, contact the HSC Digital Media Center at 882-5826.

*Connections*, the newsletter of the School of Health Related Professions is the source of some of the information for this article.

### Liveware - Sarah Blanton Web Master Medical Informatics Group

She has the power. She has control. She is the MIAIMS Web Master. To encounter Sarah Blanton one would not suspect the scope of her dominion. Behind the unpretentious, mild-mannered countenance lies virtual control of the Health Science Center's presence on the World Wide Web.

Blanton has a firm background of technical knowledge, having worked at IBM's Watson Research Center for five years where she did mechanical design of various portions of scanning tunneling microscopes and designed a scanning SQUID microscope (it's been featured as the cover story in the Jan. 19, 1995 issue of *Nature* and is covered on *Science's* web page at <http://highwire.stanford.edu/science/content/vol271/issue5247/>).

Blanton has brought organization, quiet strength, and yes, humor to the Medical Informatics Group in her position as the Web Master (or Web Administrator to be correct). With her guidance, attention to detail, and polish, the HSC Web page has developed into a respected presence within MU and to the world.

As the Web Administrator, Blanton keeps tabs on the UNIX System that stores the HSC Web information. She maintains and runs the HSC Web Server, compiles usage stats, maintains pages, and fields trouble calls if (rarely) the server cannot be accessed. She also developed a manual and curriculum to teach HSC users HyperText Markup Language (HTML) so they can code their information for publication on the Web.

While this level of responsibility keeps Blanton very busy, she always has time to answer a question, help with a Web demo, or share a humorous moment. This bastion of electronic information publication has a few weaknesses, however. She may deviate from her path for an espresso or pull out some puppy or cat pictures.

**Note:** The use of the server to publish HSC Web documents is free of charge to HSC departments/units. The HTML training is offered at no cost. Limited HTML markup will also be offered at no cost. Your Web page will be worth a million dollars and cost you next to nothing to produce.

## ... Research

Members of the Health Sciences Center research community were recently given the opportunity to investigate the World Wide Web research resources. A hands-on demo showcasing several types of information was held in the School of Medicine Atrium on January 26. Dola Haessig from the MU Office of Research showed the many online resources offered by that office. Participants were most interested in the links to funding sources. At the other end of the research spectrum, Gordon Springer, Computer Science, and Tim Patrick, Medical Informatics and School of Library and Informational Science, demonstrated an HPCC (High Powered Computing and Communications) database and a Cytokine database. Edward Coe from Agriculture demonstrated the MU-created and nationally recognized Maize Genome Database. Sarah Blanton, Web Administrator from the Missouri Integrated Advanced Information Management Systems (MIAIMS) project, explained how to search the Web for research information. The Health Sciences Library offered tours of the Sponsored Programs Information Network (SPIN) and reminded faculty that Dr. Herb Goldberg's office will pick up the tab for one SPIN search for each School of Medicine faculty member. If you didn't have a chance to visit the demo, personal tours and assistance can be arranged by calling the MIAIMS office at 884-6628, or by e-mail: miglinda@muccmail.missouri.edu. A wide world of information available right at your desktop computer. Before calling for assistance, ask your computer support person to install Netscape on your machine.



## ... CME Online

A growing number of health care education organizations are providing on-line medical education opportunities to health care professionals. The following CME courses are accredited by the Accreditation Council for Continuing Medical Education and are currently available via the Web:

The University of Washington (Seattle) School of Medicine's Radiology Teaching File offers up to 100 credit hours. Access their Web page at <http://www.rad.washington.edu/> for details.

The Department of Pathology of the Uniformed Services University of the Health Sciences in Bethesda, Md. offers programs through the Office of Continuing Health Education for professionals in federal health systems. <http://www.path.usuf2.usuhs.mil/>

The American College of Emergency Physicians and *medconnect* sponsor a CME credit program in emergency medicine. Registration for CME credit also registers you for all other educational programs and *medconnect's* Interactive Jobs Line. <http://www.medconnect.com/home-cme.htm>

## ...From a Student's View

Lucia D'Agostino  
MIAIMS Secretary  
Graduate Student, School of Library  
and Informational Science

Imagine walking into class and finding out there is no book and all your syllabus, readings, in fact all the class documentation is a slip of paper with one line of type on it! That's what happened the first day of class in my graduate level course on Digital Libraries.

The Digital Libraries course is offered by the School of Library and Information Science and is taught by Dr. Timothy Patrick. This course is a discussion and critical study of current developments in digital libraries. Dr. Patrick has supplied the syllabus, tutorials, and readings via the World Wide Web.

The Web format has saved both time and money and has made class preparation location independent. I can access the class materials from home. For my out of town classmates, this eliminates long sessions after class in the lab or library and hours on the road.

The nature of the subject matter covered in class is up-to-the-minute and best covered in journal articles and conference proceedings. These resources exist on-line and links to required readings are included in the syllabus, eliminating the need to search out and copy journal articles. A simple click of the mouse takes me to the tutorials required as lab exercises. A substantial part of the research for projects and papers can also be done on the Web. Changes in the syllabus can be made easily available to all the students, and the class schedule is more flexible and responsive to class needs.

I enjoy the schedule flexibility, ease of accessing class materials, and the ability to work in the comfort of familiar surroundings (at home). The Web format of Dr. Patrick's class is efficient and enables me to devote my time to meeting the class objectives instead of running all over campus.

# . . . Information Security

Timothy B. Patrick, PhD  
School of Library and Informational Science and Medical Informatics Group

The present and future promise of the WWW to provide high quality, remote, and *secure* access to patient information is undeniable. The WWW is currently being used at a number of institutions to provide secure access to patient information. Here at MU, for example, the Missouri Kidney Program (MOKP) uses the WWW to provide secure access to MOKP patient information to dialysis and transplant facilities .

Appropriately secure access to patient information requires that the patient information is

- ☆ always obtained from legitimate sources.
- ☆ always kept private when it needs to be kept private.
- ☆ always kept free from disturbances (malicious or otherwise).

While there are as yet no *official* security standards for the WWW, a number of companies have proposed and developed solutions that can guarantee secure WWW access to patient information. One widely available solution is the Secure Sockets Layer (SSL) protocol developed by Netscape Communications Corporation. SSL uses *data encryption* techniques to provide secure access to sensitive information. The popular Netscape WWW browser is able to use SSL and its data encryption to provide highly secure access to files on a SSL-enabled server, such as the Netscape Commerce server. A number of companies, including Apple Computer, Delphi Internet, Digital Equipment, MCI, Microsoft, Novell, Silicon Graphics and StarNine, have announced support for SSL.

In order to achieve our goal of secure access to patient information, however, we must address not only issues of data encryption and transmission. We must also address the *behavior* of the individuals and organizations that make use of the information. Its a sad fact of life that the most secure information system may give up its secrets if carelessly left unattended.

Please try the following Web sites.

## **Access to patient information:**

*Web-Based Clinical Information System Demonstration* (Columbia-Presbyterian Medical Center, New York)  
<http://www.cpmc.columbia.edu/cisdemo/>

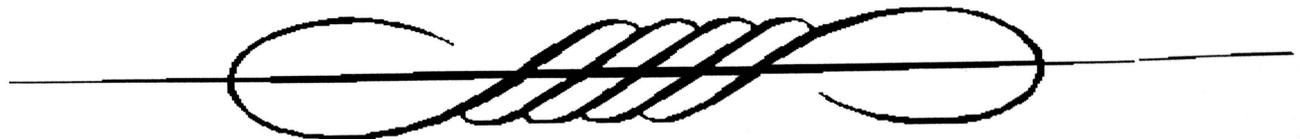
## **Information Security:**

*Computer and Network Securities* (Research Computing Group, University of Nebraska-Lincoln )  
<http://yoda.unl.edu/Network.html>

*On Internet Security* (Netscape Communications Corporation)  
<http://www.mcom.com/info/security-doc.html>

*Internet Security* (Library of Congress)  
<http://lcweb.loc.gov/global/internet/security.html>

*Security Library* (National Security Institute)  
<http://nsi.org/Library/Library.html>



# MIAIMS Progress Notes

The **Steering Committee** discussed its role in the implementation phase of the grant. The committee will oversee implementation of the MIAIMS Plan, recommend priorities for implementation, review and make recommendations for pilot projects, assure that user needs are being met, make recommendations for updating and modifying the plan, and assist with overcoming barriers.

Dr. Elizabeth Geden, Sinclair School of Nursing, a member of the Executive Team, will serve as liaison to the **Evaluation Team**. Dr. Alan Hahn, College of Veterinary Medicine, will lead the effort to see that appropriate data is collected from the defined **pilot projects** for evaluation purposes.

The **E-mail Enhancement Committee**, chaired by Marjorie Marberry, Director, Budget & Analysis, met for the first time. Its purposes are to oversee e-mail functionality within HSC, field complaints, and recommend policy and education needs. The first order of business is to plan for an e-mail help line to help resolve access and service reliability problems.

The **Electronic Health Care Record Committee** received an update on the System for Text Archive and Retrieval (STAR) from INFODATA, the company that has been hired to offer consultation for this project.

The **Clinical Outcomes, Quality, and Performance Measures Committee** is in the process of preparing its recommendation report for outcomes measures. This activity is being led by Drs. John Oro and Dan Longo.

President Russell has earmarked \$ 566,000 for the MU information technology support plans. The Chancellor has awarded \$80,000 of that amount for the **HSC Information Technology Plan**. The funds will be used to hire a manager for user support and a backbone network assistant.

A **Web Team** has been created to encourage HSC departments and units to use the World Wide Web for research, education, and to provide services to our referring health care providers. This team reflects the Chancellor's interest in ensuring that all Web documents meet MU publication guidelines.

Two **World Wide Web** demos were held in January: An openhouse for the HSC Digital Media Center and a showcase of research electronic information resources (see related stories on pages 1 and 2 respectively).

Lamar Henderson started work as the HTML Assistant February 19. He will code documents to be published on the Web, consult with committees/departments on their Web page development, and assist with HTML training. HTML (HyperText Markup Language) is the code used to prepare documents for the World Wide Web.



## THE TEN COMMANDMENTS FOR COMPUTER ETHICS

from the Computer Ethics Institute

1. Thou shalt not use a computer to harm other people.
2. Thou shalt not interfere with other people's computer work.
3. Thou shalt not snoop around in other people's files.
4. Thou shalt not use a computer to steal.
5. Thou shalt not use a computer to bear false witness.
6. Thou shalt not use or copy software for which you have not paid.
7. Thou shalt not use other people's computer resources without authorization.
8. Thou shalt not appropriate other people's intellectual output.
9. Thou shalt think about the social consequences of the program you write.
10. Thou shalt use a computer in ways that show consideration and respect.

From *The Net: User Guidelines and Netiquette* - by Arlene Rinaldi, <http://www.fau.edu/rinaldi/net/ten.html>

# Getting Your Department's Information on the Web

Information going onto the Web from MU should be considered an official publication of the institution. Attention must be paid to copyrite issues, potential audience, and accuracy of information. For these reasons the Public Relations and Marketing offices are encouraging HSC departments to serve their information through the HSC server.

## Service:

- Search Features
- Capability to track usage statistics
- Interactive pages
- Fill in forms for library services
- Feedback survey
- Assistance in designing home page
- HTML markup of complex documents
- Clickable images



contact Sarah Blanton  
Web Administrator  
882-1961

[migsarah@muccmail.missouri.edu](mailto:migsarah@muccmail.missouri.edu)

## We publish your information:

### Examples:

- Missouri Kidney Program
- Misouri Arthritis Research & Training Center
- Coursework for PBL curriculum
- Research information (Office of Research)
- Consumer health information
- Health Sciences Library
- School of Health Related Professions
- School of Nursing
- Hospitals & Clinics
- School of Medicine
- College of Veterinary Medicine

Try the HSC top page at the following URL:  
<http://www.hsc.missouri.edu>

ICONS, IMAGES,  
and BUTTONS

[http://www.hsc.missouri.edu  
/images/](http://www.hsc.missouri.edu/images/)

Create your own home page -  
it's as simple as filling in a form!

Try the following URL:

[http://www.hsc.missouri.edu  
/people/addme.html](http://www.hsc.missouri.edu/people/addme.html)

no COUPON needed  
for HSC Web page consultation

# Notes from the J. Otto Lottes Health Sciences Library

For more information about the following, call Health Sciences Library Information Services at 882-6141, or access the library's Web page at <http://www.hsc.missouri.edu/library/docs/libraryhtml>

## Ovid Access to Change

Over the next several months, the Ovid databases will be moved off the Health Sciences Library's HSLNET Novell server onto a UNIX server accessible from all four UM campuses and administered by the University's Library Systems Office. Novell access to the Ovid databases on HSLNET will probably continue to be available through the end of Winter semester. During this transition period, Ovid will be available on both the Novell and UNIX servers, although not all databases will be available in both places. CANCERLIT and the New England Journal of Medicine will remain on the old server until the final changeover.

At the end of the transition period, all Ovid databases will be available on the UNIX server.

Any questions about these changes, or problems with access can be directed to Denise Hooks in the Health Sciences Library at 882-6141 or contact the Library Systems Office at 882-7233.

There will be several advantages to this new way of presenting access to databases, including less down time, since the system will be available during routine backups and database updates.

More databases will be available, including Current Contents, BIOSIS, ERIC, and Dissertation Abstracts, which are available in addition to MEDLINE, CINAHL, and PsycINFO. A PsycINFO backfile is also available containing references from 1967-1983.

Anyone who is connected to the campus backbone and has VT100 telnet will be able to connect to the Ovid databases without obtaining a unique password via the Ovid terminal client. This includes Macintosh users, who were formerly limited to dial access. VT100 telnet users will be able to send their search results to an e-mail address and have access to the InfoTrac 2000 business and general interest databases.

For those who prefer a graphical interface, an Ovid Windows interface is available. The interface can also be used to search the system that will replace LUMIN this summer.

Dial-access users with Windows will be able to use the Ovid interface for graphical access.

A UNIX XWINDOWS interface is also available and a Macintosh interface is expected later this year.

Some resources are not Ovid databases and will remain accessible only on the HSLNET Novell server even after the Ovid transition period is over. These include:

- Cochrane Childbirth Database
- Harrison's Principles of Internal Medicine
- Health Reference Center
- ICD-9-CD
- Marcive
- SAM-CD
- STAT!-Ref

# Info Tours

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## Medical Informatics Group Monday Noon Seminars Sinclair School of Nursing, Rm S226

- Mar 4 AHA Guidelines  
Robert Cantor, MD  
Medical Informatics Fellow
- Mar 11 Spring Break
- Mar 18 A Web-Based Resource for Cytokine Research and Education  
Gary Allen, DVM  
Medical Informatics Fellow
- Mar 25 Randomized Controlled Clinical Trials for Computerized Education  
Santosh Krishna  
Medical Informatics Fellow
- Apr 1 Methods of Assisting: A Nursing School Course  
Jane E. Bostick  
Clinical Instructor, Sinclair School of Nursing
- Apr 8 Telemedicine  
Joseph A. Tracy  
Director of Telemedicine
- Apr 15 Hospital Application Programs  
John Brillhart  
Manager, Application Services
- Apr 22 Research Opportunities Associated with Digital Libraries  
Tom Kochtanek, PhD  
Information Science
- Apr 29 Are You Trained to Identify Tender Points?  
Matt McIntosh  
Statistics

Updates of the MIG Seminar series schedule are available on the World Wide Web at  
<http://www.hsc.missouri.edu/miaims/docs/migsemnr.html>

## J. OTTO LOTTES HEALTH SCIENCES LIBRARY OVID WORKSHOPS - WINTER 1996

### MEDLINE, CINAHL, & PSYCINFO

The OVID system makes available both DOS and Windows versions for searching journal literature in PsycINFO, MEDLINE, and CINAHL. These workshops focus on the Windows version; DOS instruction is available on request. Enrollment is limited to 8 persons for each workshop. Classes may be scheduled for individuals or departmental groups for dates other than those listed. All workshops will be held in HSL 126. To reserve a place in any of the classes call 882-6141 or register on the Health Sciences Library's home page on the World Wide Web at <http://www.miaims.missouri.edu/library/docs/wsreg.html>

### MEDLINE

March 19 3:30 pm - 5:00 pm  
April 8 10:00 am - 11:30 am

### CINAHL (Nursing and Allied Health Database)

March 12 3:30 pm - 5:00 pm  
April 2 3:30 pm - 5:00pm

### PsycINFO

We will provide hands-on training in basic concepts of searching and cover unique features of the PsycINFO database. Unique features on this system include the PsycINFO Thesaurus and a variety of limits which may be applied to a topic.

March 27 10:00 am - 11:30 am  
April 16 3:30 pm - 5:00pm

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## Other Opportunities

◆ Classes in HTML coding are held every month at the Health Sciences Library. Call the MIAIMS office at 884-6627 or e-mail [miglucaia@muccmail.missouri.edu](mailto:miglucaia@muccmail.missouri.edu) for details.

◆ The MOREnet Spring Conference '96, "Making Your Connection Count" will be March 10-12, Holiday Inn Executive Center, Columbia, Mo. Details are available at <http://www.more.net/spcon96/morecon.html> or send e-mail to: [spcon96@more.net](mailto:spcon96@more.net)

◆ The Community Information Network Conference, March 1-3 at the Holiday Inn Executive Center will feature several tracks including Web access to consumer health information. For more information call 573-882-2243.

◆ Dr. Russell Kirby will present a seminar on Computerized Clinical Outcomes March 22 at 12:00 noon in S261, Sinclair School of Nursing Auditorium. Dr. Kirby's seminar is cosponsored by the Department of Child Health and the MIAIMS project.

## . . . Practical Tips for Winnowing Out Unreliable Health-information Sources

- ◆ Always check the README file on the menu at the beginning of documents and databases to see who the author was and when the material was posted.
- ◆ Review the credentials of anyone who posts advice or other information to a discussion group, or ask that person to identify a Web site where the information can be verified.
- ◆ Never heed only one information source, especially one that offers a diagnosis. Consult multiple sources.
- ◆ Look for sound editorial boards and peer review mechanisms. Taking precautions is no different on the Net than it is in traditional print media.
- ◆ Everybody is used to hearing things at parties. Assess who's saying it and how it stacks up against what you already know. And if you're in doubt, check it out.
- ◆ Use common sense when assessing information from any source.

These tips are from Medicine on the Net 800/564-2177; mednet@corhealth.com

## . . . Copyright Issues

Please be aware that documents on the Web are copyrighted. Some documents may require permission to distribute or photocopy for more than personal use. Also, in developing your Web pages, be sensitive of using logos, cartoons, drawings, that are copyrighted protected. The University can be sued for copyright infringements.

# MIAIMS INFOSPHERE

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Infosphere is published bi-monthly to facilitate the transition to an electronic information environment and to promote computer literacy; supported, in part, by a grant from the National Library of Medicine (Grant #2 G08 LM 05415-03). Staff offices are located in HSL 328. Phone: 884-6627.

For ADA accommodation, contact the MIAIMS office.

The Infosphere is available on the World Wide Web at <http://www.hsc.missouri.edu/infosphere/docs/infosphere.html>

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