

INFO SPHERE

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'Class of 2000' Fellows in the Department of Health Management and Informatics Gear Up for Graduation

Dr. Allan Roth, PhD, CISSP, whose research focuses on patient care, distance medicine and information security has developed a burn software application which is loaded into a Palm Pilot (hand-held device) for quick assessment and rapid calculation of fluid resuscitation needs of burn patients. He has also earned the title, Certified Information System Security Professional (CISSP).

The three fellows that will graduate from Health Management Informatics' first class in the "Year 2000" are Allan Roth, PhD, CISSP;

Jeremiah Sable, MD; and Robert Herting, Jr., MD. The size of the graduation classes will undoubtedly grow; current enrollment is 13 fellows. That number will undoubtedly grow, too. "Every year HMI will receive two endowments from the Ernst and Young Company. The financial support is important but the interest is indicative of private industry recognizing the importance of the relationship between information technology and management," said Tim Patrick, PhD, Interim Director, Health Informatics Program. Dr. Patrick says that

the importance of the relationship of information technology and management is being acknowledged more and more - and right now we (MU) are the leaders. This means that soon there will be many more competitors.

A grant from the National Library of Medicine (NLM) supports Research Fellows whose projects focus on:

- electronic medical records
- information systems for managing health
- telemedicine/teleinformatics and distance technologies

The Fellows are learning to develop/evaluate applications of innovative information methods and computers in the health care environment focusing on effective management and communication of information and knowledge.

Robert Herting, Jr., MD, is working on the Database Scrub (DBS) that allows researchers to replace personal patient identity information with anonymous information for privacy.

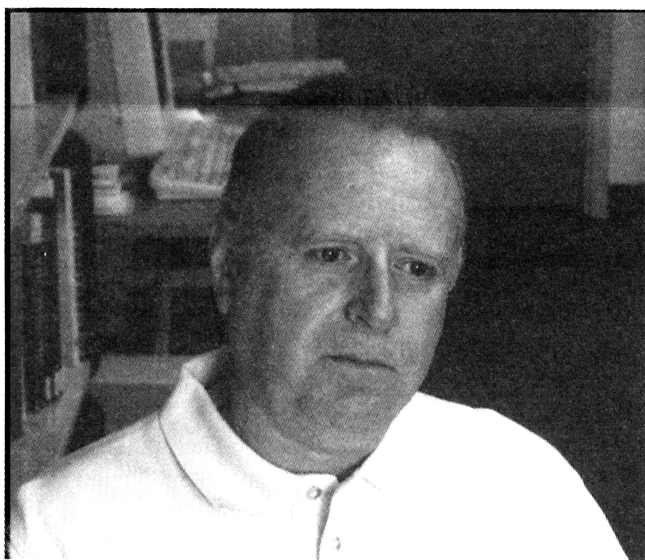
Jeremiah Sable, MD is interested in outcomes management. Working on a

Master's of Science in Health Informatics, his projects include 'retrieving outcomes literature' and 'a market analysis for medical informatics professionals.'

In December of 1997, two programs—Health Services Management and Medical Informatics—merged to form a new department, the Department of Health Management and Informatics (HMI). One of the five major divisions within HMI is the Health and Informatics Program. Health informatics is the marriage of computers and healthcare consisting of information science, computer science/engineering and educational technology in the service of health care delivery, research, education and management.

"This technology will allow the transformation of health systems to become outcome orientated," said Gordon Brown, PhD, Director. "For the first time we will have evidence-based health organizations and policies."

For more information about the Health Management and Informatics Department visit <http://www.hmi.missouri.edu>.



Allan Roth, one of the members of Health Management Informatics' first graduating class

ITS Help Desk Upgrades Coming

Integrated Technology Services (ITS) Help Desk will upgrade services on May 6, 1999. As part of the upgrade, the main number for the Help Desk will change to 884-4357(4-HELP). The number to call for system status is 884-7828(4-STAT). The existing phone numbers (882-1063 and 882-9111) will automatically be transferred to 4-HELP for a period of time. Stickers indicating whom to call for service will be placed on all ITS supported workstations and printers after the upgrade is completed.

On that same day, Campus Telecommunications will install a new Automated Call Distribution (ACD) system. This new system will eliminate the selections given to callers. Currently, callers are asked to choose from three menu options before

being connected to a Help Desk Representative (HDR). After the new system is installed, all callers will be asked to 'wait on hold' from a recording if all representatives are busy before being connected.

What to Expect When You Call the ITS Help Desk

ITS uses a service management software package, Action Request System (ARS) by Remedy Corporation, to track all interactions we have with our customers. When you call, you will be asked for your last name. This is the initial step in creating a Remedy reference ticket. You will be asked to verify your first name, location (office address) and phone number to insure that the database information is correct should there be a need

to pass the problem on to an application specialist or the on-call support staff.

If you need to follow-up on your initial call (to give additional information, request a status check or need miscellaneous information), you would then call the Help Desk, provide them with that reference number and have all information regarding that request immediately available.

The above process adds a few seconds to a phone call, but is extremely valuable in insuring that ITS provides the highest level of service possible.

If you have any questions about the upcoming improvements to the ITS Help Desk, please contact Kevin Bailey, User Services Manager (882-1639) or Honza Uher, Assistant User Services Manager (884-3122).

Cybertips

Hyperlink Formatting

By default, Word 97 recognizes network/hyperlink addresses and formats them as they appear on a webpage. Word provides the ability for you to change the hyperlink formatting:

1. Choose the Style option from the Format menu.
2. Use drop-down list to select the All Styles setting.
3. In the list of styles, select the Hyperlink style.
4. Click on the Modify button. This displays Modify Style dialog box.

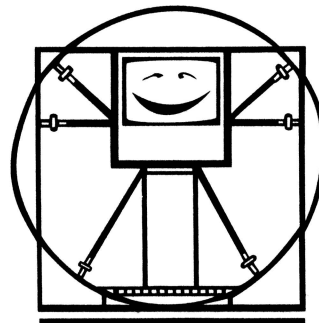
5. Click on the Format button; choose Font from the resulting drop-down list. Display the Font dialog box.
6. Modify the font settings for your hyperlinks.
7. Click on OK.
8. Make sure Add To Template check box is selected.
9. Click on OK.
10. Click on close.

Displaying Screen Tips

The small yellow boxes that pop up near the mouse pointer are called ScreenTips.

If you find them distracting, turn them off:

1. Choose Options from Tools menu
2. Select View tab.
3. Clear ScreenTips check box.
4. Click OK.



Librarian Wins Award

Diane Johnson, recently promoted to Librarian IV in the Health Sciences Library, was awarded the Estelle Brodman Award by the Medical Library Association. This award recognizes a mid-career level academic medical librarian who demonstrates significant achievement, leadership, and continuing excellence. The award was established in 1986 with a gift from Irwin H. Pizer. Congratulations to Diane!



InfoSphere Staff

Linda Cooperstock, Editor
Karen Apple, Assistant Editor
Lamar Henderson, Graphic Designer

Contributors

Rebecca Graves, Health Sciences Library Column
Alan Arnold, The Network Detective

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The purpose of human life is to serve and to show compassion and be willing to help others.

Albert Schweitzer

From the J. Otto Lottes Health Sciences Library

Seamless Confusion

The danger in having everything seamlessly linked on our computers, is that we lose sight of the boundaries between databases and the Internet. Some might argue that a world without boundaries is good. It is unless it gets in the way of finding the best information. The World Wide Web might appear as one vast library or database, but that is incorrect.

Two basic principles apply to libraries that do not apply to the Internet. They are selection and organization. Materials are selected by humans for the library that are deemed to be of interest and of value to the library's users. Databases are similar in that they are a selected collection of electronic records on a particular topic, such as phone numbers, the university's student e-mail accounts, or article citations from journals covering a specific topic such as nursing.

The Web has neither selection nor organization. Anyone with access can post pages to the Web. These pages do not need to follow a set format and therefore have no internal organization. The websites are not arranged or categorized in any way. They can be stored on any computer to which the author has access.

What about directories such as Yahoo! and search engines such as HotBot? True, these are attempts to tame the chaotic nature of the Web; however, they are only partly successful. Why? First, not all of the Web is indexable. Second, each search engine covers only a fraction of the Web that is indexable.

Un-indexable Web

It is important to note that a search engine is not actually searching the entire Web, rather an index of webpages that has been previously collected by a software program called a "spider" or a "robot."

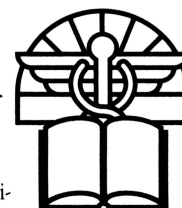
Webpages can be set up to exclude robots using a file that instructs the robots which webpages to read. Robots may also be excluded by the use of the Robot META Tag, part of the HTML code. The site administrator may also use password protection to exclude robots. Any query to a search engine will not find pages set up in this manner. For more information about excluding robots, see: <http://info.webcrawler.com/mak/projects/robots/exclusion.html>.

The other un-indexable section of the Web is documents contained in databases such as MEDLINE, accessed on the Web through a search interface. (MEDLINE is a database separate from the Internet). This means that a search in Alta Vista or Lycos will find the PubMed website, but will not find documents within MEDLINE because PubMed is a search interface to the MEDLINE database.

So why do search engines retrieve journal article citations? Some journal publishers now have websites. While most of these charge fees for the full text of the articles, many of them

post the tables of contents at no cost. The robots are able to scan and index the webpages that contain the table of contents.

According to the National Library of Medicine, MEDLINE includes 4,000 of the roughly 13,000 currently published biomedical titles. (http://www.nlm.nih.gov/pubs/factsheets/j_sel_faq.html). Even fewer journals are available on the Web; and, most only contain articles dating back one to four years. Journals that require a password would be missed by search engines.



Indexable Web

The webpages available for robots to scan and index fall into this category. However, it is estimated that the largest of search engines covers only 35 percent of the Web. Several factors such as the size of the Web, its mutable nature, and storage capacity prevent search engines from covering the entire indexable Web. Search engines must keep up with the immense growth of the Web and must use systems designed to index smaller amounts of homogenous data.

Finally, webpages are not static, sometimes changing constantly. Changing the address (URL) of a webpage can cause it to be lost to a search engine, depending on how well they monitor the URLs.

How can a person perform an effective Web search? Learn to search more than one search engine. Try using the meta-search engines that use multiple search engines. Use alternate words or phrases. Also decide whether the desired information might be found in the general indexed categories such as government information, travel, education; or whether the un-indexable sites (searches of databases such as PubMed) should be used.

The Health Sciences Library offers a workshop called "Internet Searching for Health Professionals." This 1 1/2 hour session is offered monthly in the library or you may request a special session at your convenience either in the library or at your office. The library's website also offers a tutorial. Go to <http://www.hsc.missouri.edu/library> making the following selections: >Internet Health Resources>Searching the Internet>. You may also choose "Help in Choosing a Search Engine" on the Library's website. The form allows you to check the features that you want a search engine to perform. For the definition of a feature click on the blue text. Once you have made your selections, click on Submit Answers and you will be presented with a listing of up to three search engines that match your request. Examples of how to use the features will also be displayed. Finally, you can always call the library to request a Web search.

If you have any requests or comments, call us at **882-6141**.

Orders Management Implementation at Ellis Fischel Cancer Center

Orders Management, the Patient Centered Care Online (PCCO) computer system that automates clinical orders, was implemented at midnight on March 8 at Ellis Fischel Cancer Center (EFCC). Orders Management allows on-line entry of patient orders, inquiry about order status, charting of task completion and charge capture for procedures/tests or materials.

Electronic order entry can now occur on all EFCC inpatient units, as well as in Ellis Observation, Same Day Surgery and Recovery areas. Departments that will electronically receive these orders include Radiology, Social Services, Cardiopulmo-

nary, Dietary, Rehabilitation Therapies, Materials Management, Endoscopy, and Chaplains. Certain tests and services from departments at University Hospital can be ordered electronically for EFCC patients. The order request will print in the department work area at University Hospital.

Orders for Pharmacy and Pathology services, and orders/charges from the Operating Room that go through the current SurgiServe system are not included in this initial pilot.

Orders Management workgroup members were on-site at EFCC locations during the first week to assist staff with the new system. A go-live

Command Center at the A. P. Green Building on the EFCC campus was also staffed to facilitate implementation activities.

Orders Management is scheduled for implementation at University Hospital in the summer of 1999.

DVI/Maxima Systems Upgraded

Integrated Technology Services (ITS) recently replaced the DVI (Digital Voice Incorporated) system in use at the University Hospitals and Clinics. DVI allows clinicians to dictate patient clinical information via telephone. Medical record transcriptionists can then phone into the DVI system to hear and transcribe the dictations, which are entered into the MAXIMA transcription system for printing and storage. Maxima is Year 2000 (Y2K) compliant with new hardware installed as part of the project. At the present time, documents transcribed with Maxima are accessible in STAR (System for Text Archive and Retrieval), and soon will be accessible in PowerChart.

Internal Medicine, Family and Community Medicine, OB/GYN, Orthopaedics, Child Health, and Cardiology Outreach currently use DVI. Transcriptionists for both University Hospital and Ellis Fischel use DVI to access the dictated documents.

The new DVI system expanded the number of



ports available to clinicians for phone dictation from 64 to 72 on the main system; from 16 to 72 ports on the redundant EMS (EMergency System) back-up system. The new version also provides a method for tracking job numbers, which makes it easier for the transcriptionists to manage their work priorities. In addition, the system is now configured for easier emergency maintenance that allows the backup system to take over seamlessly in the event of hardware or software failure.

The new upgraded system provides Y2K compliance and increased efficiency and reliability of the telephone dictation system.

MedLine/CINAHL/ PsycINFO/Internet Workshop Schedule

May

MEDLINE	Wednesday 5	10:00-11:30 a.m.
Internet Searching	Thursday 20	3:30-5:00 p.m.
CINAHL	Tuesday 25	12:00-1:30 p.m.
PsycINFO	Wednesday 26	10:00-11:30 a.m.

June

MEDLINE	Tuesday 8	3:30-5:00 p.m.
CINAHL	Thursday 17	3:30-5:00 p.m.
PsycINFO	Wednesday 23	10:00-11:30 a.m.
Internet Searching	Tuesday 29	12:00-1:30 p.m.

July

MEDLINE	Tuesday 13	10:00-11:30 a.m.
CINAHL	Monday 19	3:30-5:00 p.m.
PsycINFO	Thursday 22	10:00-11:30 a.m.
Internet Searching	Wednesday 28	10:00-11:30 a.m.

You can search journal literature on the OVID system using Windows or Web. These workshops focus on Windows; you may request Web instructions. Enrollment is limited to eight each. Special dates available. Call 882-6141 or go to <http://www.hsc.missouri.edu/library/docs/wsreg.html> to register or for more information.

PCCO Questions

Do you have questions about the implementation of PCCO and how it's going to affect what you do? Send your questions to **Linda Anderson**, I/S Service Coordinator with the User Services division of Integrated Technology Services.

(573) 884-2659

[573] 882-6013

andersonlk

@health.missouri.edu

Clinical and Plant Engineering Prepare for Y2K

Preparing for the Year 2000 (Y2K) in the Health Sciences Center (HSC) does not just include personal computers. Clinical and Plant Engineering are getting ready, too. Preparation began with a meeting with all managers, assistant managers and mechanical/electrical supervisors to review the systems and identify what types of problems they might expect and where.

Plant Engineering prioritized equipment into three categories:

- Life Safety Systems (alarm systems, etc.) 12 Total Systems
- Utility Systems (electric, water, steam, medical gasses, etc.) 10 Total Systems
- Miscellaneous equipment (autoclaves, washers, etc.) 25 pieces of equipment



“We looked at each system to decide which were microprocessor controlled (not automatic) and date driven,” said Gene Ravenscraft, Assistant Manager, Plant Engineering. An additional step; letters were also sent to the system/equipment suppliers/vendors requesting ‘readiness disclosure’ and any other information needed to insure current systems and equipment compliance.

Toward a Centralized Registration System

As part of the process re-engineering and improvement in the Health Sciences Center the Executive Leadership Group has approved the concept of a center dedicated to providing registration and scheduling. This functionality will be under the Patient Access and Referral Services currently directed by Kay Davis. “The goal,” says Kay, “is to develop standardized patient access functions into a consolidated work unit, but more importantly, to make registration easier for patients.” The concept is the result of several key department leaders throughout University Hospital, University Physicians, Ellis Fischel, ITS and

Finance working diligently over the past several months to address challenges of existing processes.

The components of centralized registration include clinic scheduling, standardized pre-registration and insurance plan verification. Pre-certification is being considered as a future function. The plan is to integrate clinic, referral and patient accounts functions into one area so the patient’s registration is complete upon arrival at check in. The information will be more accurate and it will be collected only once.

The implementation steps which have been completed are:

- Develop standardized registration guidelines.

Tests have been run on all microprocessor equipment to verify that it will handle any date related Y2K issues. The remaining systems, which are primarily mechanical, are currently being evaluated; no major Y2K problems are expected.

Clinical Engineering contacted all of the more than 500 by contacting all of the medical device manufacturers to obtain Y2K disclosures and equipment status. No discrepancies were found in the information supplied to Clinical Engineering from the vendor disclosures.

Jim Witting, Assistant Manager, Clinical Engineering reports that 81.5 percent of the 7,000 patient care equipment items have been internally tested and/or certified by the vendor to be Y2K compliant.

Remaining equipment not tested has been organized into two categories:

- A. Priority One Equipment: The equipment that remains to be tested. (Approximately 6 percent of the patient care equipment inventory)
- B. Priority Two Equipment: Remaining patient care equipment inventory of which a significant number of the same manufacture and model number have been tested.

Send Your Tech Questions to Us

You use a computer in your office every working day, but do you really know how it all works? Have you ever wonder how all these electronic signals become information on your screen?

Many of us have questions about the tools we use and don’t know where to turn for answers.

Answering your technology questions is part of what InfoSphere is all about. If you have a technology-related topic you would like to see covered in a future issue of InfoSphere, please send it to **Karen Apple**, Senior Information Specialist, Integrated Technology Services, **882-5772**, AppleK@health.missouri.edu.

XML: The Next Big Thing

Some of you have been hacking webpages from the cold and damp of raw HTML since someone whispered the magic word, "Web," into your ear. Some of you are struggling along just trying to figure out this process of making pages. Most of you, though, just like to surf, hauling up treasures of useful knowledge from among the flotsam and jetsam of the information explosion.

All of your lives are about to change. Again.

The next big thing in the evolution of the Web is not just coming; it's already here, but you may not know about

it yet unless you're using Microsoft Internet Explorer 5.0. Extensible Markup Language, or XML, is a new language designed to help Web authors organize their information so that it's easier and more efficient to present it to the teeming masses clamoring for your data.

So, how is XML different from HTML? The two are entirely different; XML is not designed to replace HTML, but rather work with it to expand your capabilities as Web authors. While HTML was designed to control how information is displayed in a Web browser, XML was

designed to define what that information is.

XML is used to define what each piece of information means, using tags that the user defines. You then use cascading style sheets or a new technique, Extensible Style Language, or XSL, to tell the document what to do with the information based on how it is defined.

Now, you ask yourself, Self, what is the big deal about that, and how is it going to affect me and my data? To learn more about XML and how it will affect your work, visit these websites:

20 Questions on XML

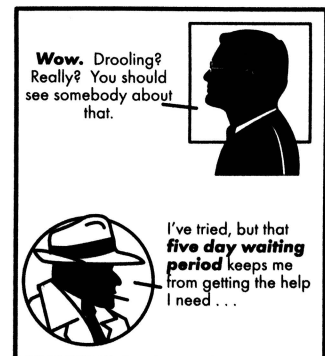
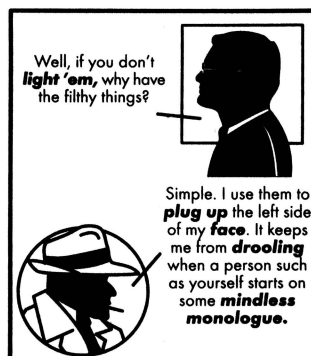
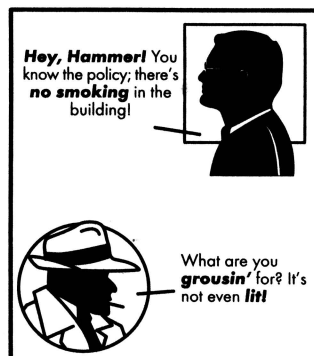
The Complete WEDGEECH

(www.builder.com/Authoring/Xml20/index.html): Builder.com offers succinct answers to your basic XML questions in easy-to-understand, not-horribly-techy language.

XML Zone (<http://www.projectcool.com/developer/xmlz>): A service of Project Cool, XML Zone offers not only explanations of XML, but tutorials and examples you can view if your browser that supports XML.

Jack Hammer, Network Detective by Alan Arnold

By, er, ah – **popular demand**, we present a **Classic Jack** from May 1997. (Popular demand. Yeah. That's our **story** and we're **sticking** with it.)



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