University of Minnesota

Office of Information Technology

What's Inside | OIT | November 2004 Newsletter

Vol. 9 No. 6

Information Technology

New Service. New Department.

UDMS: University Data Management Services

Store and protect your data 24/7

Did you know there is a new department in OIT that focuses solely on issues surrounding the storage and protection of the University's most critical electronic data?

Formed in February 2004, UDMS — University Data Management Services — is a part of Central Computing Operations (CCO) and is managed by Carl Follstad, a recent hire to the University.

UDMS has one mission: secure, fast, reliable, scalable and flexible computer data storage. Let's take a look at that mission statement a little closer.

UDMS has one mission: secure, fast, reliable, scalable and flexible computer data storage.

UDMS is secure

For data storage to be secure it must physically be in a safe location. For computers, that means a data center. The University has data centers in several locations, and UDMS and CCO have chosen one on the west bank and

another on the east bank. We're also finalizing a location in St. Paul. Data centers all have battery backups for power protection, motor generators to produce power (if Xcel Energy can't provide it), and typically redundant power supplies within the room. They also have access controlled via magnetic card scanners.

UDMS is fast

It's odd when you think about it; but UDMS can store your data in a data center a mile away, and access to that data is still faster than if it was stored on the hard drive in your computer. (How do we do that?)

UDMS is reliable

Ever have your hard drive crash? Disk drives are mechanical, and there is always that risk.

UDMS manages data on hundreds of hard drives and, to be honest, sometimes our drives fail too. We protect data by storing data on more then one disk so that we can continue to provide access to our customer's data even when a drive has crashed — or when a fiber optic cable is cut — or when some of our other hardware fails. Our storage systems automatically call an engineer when there is a failure, and most problems are fixed within a few hours without our customers even knowing about it. 24x7x365.

Of course, we do need downtime occasionally, but we try to keep that to scheduled times once a calendar quarter (every three months).

Flexible data storage

What, you may ask, is flexible data storage? Well, flexible storage means you can do more with it. For instance, for many production OIT applications, it would be very beneficial to instantly have copies of production data to use for testing or for reporting or to use for backup. Using our utilities, we can instantly create point-in-time copies of production data for use by non-production processes. Also, we can mirror disks between data centers, can share data between multiple servers, and backup databases. We can do all this while they are running!

For data storage to be secure it must be in a safe location. For computers, that means a data center.

SAN storage

CCO plans on deploying much of this SAN (Storage Area Network) technology in the first part of next year. Some other departments in OIT are deploying it sooner.

UDMS' SAN storage is centralized which means we can manage it using a small set of similar software tools, a small amount of data center space, and just a few people. That drives efficiency which lowers cost. Not a bad thing considering all the other functions SAN connectivity enables, many of them listed above.

UDMS cost

The cost of all the SAN components are borne by OIT. There is a monthly fee for collegiate departments, but those costs are at or below CCO's cost. (SAN resources aren't cheap. Users within OIT must go through an approval process to a request a SAN attachment, but there is no fee for OIT users.)

Backup and archive

Another aspect to data management is backup and archive, two other functions that UDMS can help with. Those topics will be discussed in next month's OIT newsletter. Stay tuned!

Contact us

As always, if you need SAN or backup information, please send e-mail to udms@umn.edu.

Carl Follstad, University Data Management Services

Setting up New Computers For Departments

U-Rent-A-Guru

U-Rent-A-Guru (URAG) consultants provide short-term computer consultation and support services within University Computer Services (UCS). In September, UCS received an increase in requests to set up new departmental computers, a URAG service that includes more than physically setting up new computers in a specific departmental location. Below are some examples.

Security issues

The URAG service addresses computer security issues. URAG consultants install the most recent Symantec Antivirus (SAV) software and updates, as well as set the SAV software to automatically scan the hard drive daily and update virus definitions. (Note: ADCS has an agreement with Symantec Corp. stating the SAV software can be installed on computers owned by the U of M. More information regarding the ADCS agreement with Symantec can be found at https://www.umn.edu/adcs/software/security/.)

Services for Windows

If the computer is running a Microsoft Windows operating system, URAG consultants will install and update Microsoft software critical updates and/or service packs, as well as set up the computer to obtain future Microsoft critical updates and/or service packs. According to the University Standard, all security patches must be applied on a regular basis; more info on this at http://www.umn.edu/oit/security/.

If critical patches and updates are not applied on a regular basis, computers on the University network risk being vulnerable to various worms, viruses, Trojans, and direct hacker attacks.

Popular options

U of M departments usually request additional URAG services during a new computer set up appointment. Most popular options include:

- ☐ install U of M Campus Agreement Microsoft software options. The most common request is to install Microsoft Office. More information regarding the U of M Campus Agreement software options can be found at https://www.umn.edu/adcs/campusagreement/
- ☐ transfer data from an older computer to a new one
- ☐ configure the computer to print to a departmental network printer
- ☐ set up Internet and e-mail clients
- ☐ set up the U of M dial-up connection
- ☐ install other software (the software CD and product key must be present for the install)

U-Rent-A-Guru consultants provide short-term computer consultation and support services.

Available on an hourly basis

URAG services are available on an hourly basis, and a URAG consultant will come to your departmental Twin Cities campus location.

- For more information, visit the University Computer Services (UCS) web site at http://www.umn.edu/ucs
- To schedule a URAG consultant to assist your department, call UCS at 612-624-4800.

Renee Rivers, University Computer Services

JSTOR a key archive for scholarly journals

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

A subscription service

Conceived by William G. Bowen, President of the Andrew W. Mellon Foundation, in 1994, JSTOR is an independent, not-for-profit organization which provides efficient access to the back files of core scholarly journals. One of the few self-supporting digital library projects, JSTOR is not tied to any particular publishers or subsidized by a university or research grant. Libraries and others are able to access the system through a subscription service that includes setup fees and annual, ongoing fees.

Authorized users are able to access JSTOR from the Libraries' web page and search or browse through the contents, view and print articles using standard PC equipment 24/7 from any networked location. From the Libraries' main web page

- users can click on **ejournals**
- then click on the **JSTOR** name
- and be taken to the JSTOR site

Access from 264 publishers

Currently more than 1,200 US libraries and other organizations participate in the JSTOR project, with a worldwide total of over 2,100. Today JSTOR provides scholarly journal access from 264 publishers.

The system includes 440 journals and provides nearly 16 million article pages to users. JSTOR offers both multidisciplinary and discipline-specific collections to potential subscribers so they can acquire the types of materials they want or need for their users. See Figure 1 for a listing of the general subject areas, and numbers of journals in those areas, to which we subscribe.

The moving wall

JSTOR is no replacement for scholarly databases or using the Libraries' vast holdings of current and past journals. Conceived as an archive, JSTOR concentrates on providing access to a comprehensive historical collection of key scholarly titles, and few current titles

Figure 1:
JSTOR journals coverage by subject

Subject	Number of Journals
African American Studies	8
African Studies	15
American Indian Studies	1
Anthropology	18
Archaeology	11
Architecture & Architectural History	3
Art & Art History	9
Asian Studies	14
Botany	8
Business	55
Classical Studies	13
Ecology	21
Economics	36
Education	27
Film Studies	2
Finance	5
Folklore	2
General Science	7
Geography	9
History	55
History of Science & Technology	11
Language & Literature	52
Latin American Studies	10
Law	29
Mathematics	19
Middle East Studies	9
Music	33
Performing Arts	3
Philosophy	20
Political Science	9
Population Studies	9
Psychology	3
Public Policy & Administration	5
Religion	2
Slavic Studies	4
Sociology	34
Statistics	14

would be found here. JSTOR defines this gap in coverage as a "moving wall."

JSTOR's "moving wall" represents the time period between the last issue available in JSTOR and the most recently published issue of a journal. This time gap is specified by publishers in their license agreements with JSTOR, and generally the gap ranges from 3 to 5 years. Through the moving wall, JSTOR is able to allow publishers to maintain current subscriptions and revenues from current and recent material, while providing libraries and researchers access to these scholarly materials as an archive, providing both preservation and access for journals after a reasonable period of time.

Browse JSTOR

JSTOR allows users to either browse the database by journal name or search the contents. Use browse when you have a citation and need to locate the article, when you want to look over the tables of contents for some specific journals, or when you want to look broadly at all the journals contained in JSTOR. You can choose to browse by discipline or journal title. Each listing tells you exactly which years of each publication are available in JSTOR. Simply click on the journal title to get access to that title and its contents.

Search JSTOR

If you need to access older journals from a remote site or just need to identify a few scholarly resources for a short research report, JSTOR offers a good search engine to help you get at scholarly articles by topic. Again, JSTOR doesn't offer comprehensive coverage of any discipline, but is a good quick way to get at a subset of published scholarly works from many fields.

To search the JSTOR collections, the main search screen automatically appears when you select JSTOR from the Libraries' web page, or click on the **search** feature from the JSTOR home page. Next, select your search terms. JSTOR supports fielded searching (title, author, abstract, caption, or full-text) and the Boolean operators of AND, OR, and either NEAR (10 words) or NEAR (25 words). Next, select the disciplines or journals to be searched.

If you want to do a comprehensive search, click off each of the discipline areas listed.

You may also limit by type of material (article, review, opinion pieces, other items), date range, and whether you want full records or only those with full-text.

The search results can be sorted by relevance (highest scoring in relation to the search topic would come first) or by date (most recent items first).

Full-text is the most expansive search option. If you retrieve too many items, you can limit the discipline areas or limit your search to the abstract field to get a smaller set of records. Note, however, that many of the records in JSTOR do not include abstracts or captions, making this a less effective search option.

The search results will indicate the number of records found and give you the citations for the first group of these. (See Figure 2.) Along with the citation you will be given options to: view the citation/abstract, full-text article (if available); link to the first match in the record with your terms; print or download the item.

Advanced searching

If you have a complex search, using synonyms or transliterated words, or controlled proximity searching, the Advanced Search is your best option. Terms can be enclosed in quotes to allow for more precise searching (for example **"north american free trade agreement" or "nafta"**).

The plus sign (+) is used by plurals (e.g., **genome+**). No stemming, truncation, or wildcards are allowed.

Figure 2: Citation from JSTOR

Dakota Indian Economics and the Nineteenth-Century Fur Trade

Mary K. Whelan
Ethnohistory, Vol. 40, No. 2 (Spring, 1993), pp. 2460276.
Stable URL: http://links.jstor.org/sici?sici=0014-1801%28199321%2940%3A2%3C246%3ADIEATN%3E2.0.CO%3B2-6

Citation / Abstract | Page of First Match | Print | Download | Save Citation

You are also able to search within specific fields (e.g., **"genome+"/title and "sequence+"/abstract**). Proximity operators allow for variations in spellings or names (e.g., **words(3,"william","DuBois")**).

Save citations

JSTOR can easily export citations into RefWorks or other bibliographic citation systems, such as EndNote, ProCite, or Reference Manager. First save selected citations and View Saved Citations. This allows you to e-mail, save as text, or save your records in a separate window.

You can save up to 200 citations can be saved at any given time. For specific step-by-step directions on saving to RefWorks, use these directions: http://www.lib.umn.edu/refworks/import/JSTOR.pdf. Saved citations are deleted when the user either removes them from the list, closes the browser, or exits JSTOR.

Records can be printed using the Print button or downloaded in multiple formats: TIFF (the accessibility option); PDF (recommended for most users); or PostScript (for UNIX users).

Linking to JSTOR

JSTOR items are linked to journal records in MNCAT® as well as from many of our databases using our **FindIt** links. Good JSTOR help information is available in the database itself. The **Demo** link provides a step-by-step overview and demonstration of the database and searching strategies. **About JSTOR** gives users more background information on the project and latest news about the growing collections.

Give it a try!

JSTOR presents a good example of how libraries and academe can partner with publishers and others to create new models for the distribution and archiving of scholarly information. Many faculty on campus use JSTOR to develop small-scale research projects for their classes.

Whether you go to JSTOR directly or access it through our **FindIt** links in databases, JSTOR serves as a major source of full-text journal literature for our campus today.

Nancy Herther is a Social Science Librarian and Bibliographer with the University Libraries. Communications about this column can be addressed to: n-hert@umn.edu

DMC Spotlight Issue

Fair Use: TEL Principles and Practice

Each month, Digital Media Center (DMC) consultants publish a "Spotlight Issues" article on our web site about a current technology-enhanced learning (TEL) issue highlighted at sessions of the TEL Seminar Series, in our classes, or at our program or project meetings. This month's article is excerpted below.

Napster, Kazaa, Grokster, RIAA, Disney; all of these magic words tend to cause college administrators to perspire, maybe even break out into a heavy sweat. Nearly twenty years ago the magic words that produced similar reactions and anxiety were Kinko's, Michigan Documents, and Texaco. Yet here we are still confronting the content industry's effort to expand controls on access and use of copyrighted intellectual property (IP) with the same legal defense, fair use, as set forth in Title 17 U.S.C. section 107. Today's challenges to fair use come not from amendments to section 107 but rather from new legislation that places technological barriers to access preeminently in front of fair use. That is, regardless of the public's right to access or use copyrighted information, technology used to control access or use now stands between fair use rights and the content. Recent legislation like the Digital Millennium Copyright Act (DMCA) with its anti-circumvention provisions, making it illegal to "rip" CDs, DVDs, or other digital media packaged inside some access controlling encryption, do an end-around section 107 by avoiding copyright altogether: the crime now

is circumventing the technological control measure.

Marketing strategies too tend to evade provisions of copyright law. When licensing copyrighted content, publishers and other IP owners avoid the provisions of section 107 simply because the terms of the contract, the license, take precedence over statute. Technological Protection Measures (TPM) combined with licensing create a formidable barrier to some of the non-commercial, educational uses that we in the academic community think of as traditionally allowable under fair use. The power of hot button issues like P2P file sharing is to galvanize the public's perception that any and all unauthorized use of copyrighted content is piracy. With its tightening of controls on copyrighted content, the entertainment industry, wittingly or not, has upset the balance which copyright law seeks to maintain between private interest and the public good.

Restoring and maintaining copyright law's balance between the competing interests of content owners and the public interest in advancing human understanding is the subject of controversy and continuing debate in academia. Using technology to deliver copyrighted content as the subject matter of course instruction and research involves careful attention to the law and detailed analysis of the circumstances surrounding each and every instance of use. In particular, faculty members and other instructors who teach in technology-enhanced learning environments need to become familiar with this debate and the controversy, but understanding the issues is an institutional responsibility that we all share. Only by doing so can the University community ensure effective policy development and responsible compliance with the law.

December 7 seminar

Please join us at the next TEL seminar:

> December 7, 402 Walter Library, noon–1:30 p.m.

Moderator Dan Donnelly from the University Libraries/University Libraries' Copyright Information & Education Initiative and the university copyright experts below will discuss these issues from the perspectives of policy development and best practices.

- John Butler, University Libraries/University Libraries' Copyright Information & Education Initiative, Twin Cities campus;
- Saundra Martell, Office of the General Counsel, Twin Cities campus;
- Jessica Reyman, Department of Rhetoric and University Libraries /University Libraries' Copyright Information & Education Initiative, Twin Cities campus.
- Lois Williams, Copyright Administrator, University's Copyright Permissions Center. Twin Cities campus.

For information about the other fall seminars, see http://dmc.umn.edu/series/fall04.shtml.

Preliminary readings

Annotated citations to several readings that may help you prepare for the seminar will be published on the DMC web site in November at http://dmc.umn.edu/spotlight/fair-use.shtml.

Campus resources

The following may help instructors further explore the educational uses of simulations and virtual field trips:

- Find out more about technology-enhanced learning fair use issues on our web site at http://dmc.umn.edu/IP/fair-use.shtml.
- Meet with one of our consultants to get help assessing fair-use issues related to your educational technology project. See http://dmc.umn.edu/consultations/.
- Learn about educational technology intellectual property issues by participating, or sponsoring the participation of a teaching assistant (TA), in the TA Web Certification Program. See http://dmc.umn.edu/ta-web/.
- Consult the staff members of the Copyright Permissions Center and the Office of the General Counsel about fair use principles and issues. See http://www.copyright.umn.edu/home.htm and http://www.ogc.umn.edu/.

Other resources

This article and links to the panelists' TEL grant proposals will be available on the DMC web site two weeks before the seminar at http://dmc.umn.edu/spotlight/fair-use.shtml. A summary of the seminar, a complete bibliography, and information about the work of the University Libraries' Copyright Information & Education Initiative will be available on that page shortly after.

Dan Donnelly, University Libraries/Digital Media Center, and Christina Goodland, Digital Media Center

▼ Help

Computer Misuse or Abuse (also see Procedure 2.8.1.1)

- Emergency Network Help Line 612-625-0006
- Non-emergency, e.g., spamming ..... abuse@umn.edu

1–HELP 612-301-4357

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

- Technology Help..... www.umn.edu/adcs/help

▼ Modem pool for active UM accounts

Internet/PPP: up to 53kps if v.90..... 612-627-4250

▼ Quick Guide

- Internet/Email account options .... www.umn.edu/validate
- Office of Information Technology .....www.umn.edu/oit
- One Stop Services ..... onestop.umn.edu
- Techmart ..... www.techmart.umn.edu
- Computer Accommodations Program ..... cap.umn.edu
- University Computer Services ..... www.umn.edu/ucs
- MNCAT/LUMINA (Library).....www.lib.umn.edu
- UM News Server.....news.umn.edu

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

Subscribe/Unsubscribe ☆

This newsletter is published monthly; it is an information resource for the University of Minnesota. We maintain two mailing lists. You can subscribe to one or both: an e-mail list and a paper mailing list. Paper copies are free but are mailed only within the USA.

Complete subscribe/unsubscribe details at:
www.umn.edu/oit/newsletter/subscription.html

● The subscriber information we need for paper copies mailed to a UM campus mail address is listed below.

If you use a campus mail address, you will receive your paper copy sooner and will save us money.

1. the recipient's name
2. the recipient's department
3. the departmental mailing address (note: this address is usually different from your personal office address; the Campus Mail section of your on-line directory entry lists your campus mail address)
4. your campus delivery code — if you know it (we can look it up; we need it because the newsletter is a bulk mail item)

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

Twin Cities campus address label trivia: 1st # is record #; 2nd # is your Campus Mail delivery code, http://umn.edu/lookup

Nov. 2000 4B [pantone 295]

□ ***Add*** (subscribe info below at ☆)
□ ***Delete/Cancel*** *
□ ***Change Name*** *
□ ***Change Address*** *
□ ***Change Other*** *

* If you cancel or change a campus address, please tell us the **Record No.** Tear off the end page and send the entire mailing label to us. Or send e-mail to: oitnsltr@umn.edu

Information Technology Newsletter
University of Minnesota
Office of Information Technology
190 Shepherd Labs
100 Union Street SE
Minneapolis, MN 55455-0421