UNIVERSITY OF MINNESOTA

Office of Information Technology

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Information Technology

Good news

My Active Advisees

Suite of reports now available at UMReports, http://www.umreports.umn.edu

UMReports has developed a new way for advisors to access report information (including private student data) for all their active undergraduate and graduate advisees. The report is located at UMReports in Category: Student & Instruction Sub-Category: Students.

In the same way that "My Classes" provides quick access to Class List reports for instructors, "My Advisees" is designed to give advisors easy access to reports about their group of active advisees.

A new way for advisors to access report information

Reports currently available include

My Active Advisees – Index

> This report serves as the gateway to the "My Advisees" suite of reports and provides a graphical representation of advising load; it is based on an advisor's current list of advisees. From the Index Page, you can view an Advisee Roster — by academic career, advising plan, advising committee assignments (if any), or a full roster of all active advisees.

UMN

My Active Advisees — Roster

Shows information about advisees, based on their last enrolled term. The Roster lists all active programs, plans, and subplans for each advisee. In addition, credit loads, GPA, student picture, honors, expected graduation term, etc. are included.

My Advisees — Midterm Alerts

Shows if any current advisees have received midterm alerts.

My Advisees — No Enrollment

Shows whether any current advisees did not enroll or completely cancelled for a specific term.

My Advisees — Registration Holds

Shows current advisees who have a service indicator that holds registration on their records.

My Advisees — Leave of Absence

Shows current advisees who are currently on Leave of Absence or who have a future-dated leave scheduled and includes whether they have a return from leave scheduled.

More reports coming

If you are an advisor with active students, check out UMReports for information about your students! Additional reports for advisors will be added in the future, so watch our site for updates.

■ Amy Winkel and Cindy Salyers, OIT, Information Management Systems (IMS)

UCS Changes

Based upon customer input, University Computer Services (UCS) has made some changes to current service options to better serve the U of M community. For detailed UCS service information visit http://www.umn.edu/ucs.

Some UCS service changes include:

▼ More software for sale: UCS has increased the amount of software available for sale at the UCS east bank campus location at reduced prices for U of M students, faculty, staff, and departments. Software examples include Microsoft Office, Microsoft Windows XP Pro Upgrade, Adobe Acrobat, and SPSS. For a complete list, see the UCS website.

▼ Refurbished computers: UCS continues to reduce the prices of refurbished computer equipment for sale. Most 17" monitors are only $25! All computer equipment is tested and comes with a 30 day warranty. See the UCS website for a detailed list of equipment for sale.

▼ Extended laptop rentals: This program allows current U of M students, faculty, and staff the flexibility to check out computer equipment for a day, overnight, or an extended period of time. Due to an increase in mass laptop rental requests, UCS has increased the number of laptops available for rentals.

▼ Microsoft Academic Student Select program: UCS continues to offer currently enrolled U of M students reduced Microsoft software options (e.g. Microsoft Office 2003, Microsoft Windows XP Pro).

U-Rent-A-Guru software support

U-Rent-A-Guru (URAG) consultants provide short-term consultation and support services. A major URAG support focus continues to be computer security. New service options include assisting U of M departments with applying current Microsoft critical updates and/or service packs, updating antivirus software, and setting up desktop computers to obtain future Microsoft critical updates through the new University of Minnesota OITSUS server.

Other URAG support options include:

- Virus removal
- Data transfer and recovery

- OS (operating system) support and upgrades (Windows 98 /2000/NT/XP, Mac OS, UNIX)
- Internet browser installation and configuration, such as Netscape, Internet Explorer
- E-mail client installation and configuration, such as Netscape, Outlook Express, and Eudora
- Hardware setup and configuration
- Memory and hard drive installation

Computer recycling for departments

UCS picks up departmental computer items located on the Twin Cities campus free of charge and recycles or disposes of them properly according to the University recycling policies (including protecting private data and licensed software). Departmental pickup requests have increased over the years. UCS continues to increase staff to assist U of M departments with this service.

UCS will continue to increase and/or add services based upon customer recommendations.

■ For detailed UCS service information call 612-624-4800 or visit the UCS website at http://www.umn.edu/ucs.

Renee Rivers, University Computer Services

Service Upgrades
for ResNet and all network users

Mid-August saw two significant enhancements to campus network services: to improve network security, Residential Networking (ResNet) participants must get their computers scanned before they can use their ResNet connection; and Networking and Telecommunications Services (NTS) reached a major milestone in their effort to upgrade the campus data communications network.

If you missed those announcements or want more information, read the sections below.

■ ResNet Access Scan

ResNet Access Scan was implemented to improve network security. Students who live in residence halls and participate in ResNet now must scan their computer for a select number of security vulnerabilities before they can use their ResNet connection to connect to the Internet or the rest of the University network.

The initial scan
The first time ResNet users try to connect their computer to the ResNet network, they will find that regardless of which web address (URL) they try to access, they are lead back to the ResNet Network Log-

in page. To get past this barrier, ResNet users must log in and pass the security scan. If their computer does not pass the scan, their browser will display the tests that failed and the suggested fix. After applying the suggested fix, they must run a re-scan.

A new routine

Thereafter, whenever a ResNet user restarts their computer they will need to start a web browser and access the ResNet Network Login page. These subsequent scans will take much less time.

Periodically other high-risk vulnerabilities will be added to the scan. When that happens ResNet computers will be flagged and the next time ResNet users login a scan will be performed.

ResNet login is limited to devices that have an IP address, can use DHCP, and that support a web browser.

For more information on the ResNet Access Scan program see http://www.resnet.umn.edu /html/scan.html.

■ Network upgrade

August 19, 2004 message from Steve Cawley:

> This past weekend Networking and Telecommunications Services (NTS) successfully reached a major milestone in their effort to upgrade the communications network. You will recall that the Board of Regent approved the network upgrade project last year and that by next summer the entire Twin Cities campus network will be upgraded to a faster, more reliable, and more secure network.

> This past weekend the core of the new network was successfully put into service. All campus buildings are now connected to the new network core operating 10 times faster than the old core. This was a massive move that took many hours. Service disruptions to the network were minimized. NTS staff worked around the clock to complete their work by Monday morning. Many college and department technical employees also came in over the weekend to test critical servers once the new core was operational. I want to thank everyone who helped make this past weekend a success.

> Now that the new network core is operational NTS will begin to cut the new building electronics into service. This effort is complex and requires a building-by-building process of moving over 55,000 wires from the old electronics to the new electronics. This final phase of the upgrade project will last 8–10 months. Cutovers will start in St Paul, followed by East Bank (south of Washington), West Bank, East Bank (north of Washington) and off campus locations, respectively. Brief network outages lasting approximately 1–2 minutes will be experienced as each user connection is moved to the new network. Outages expected to be longer then two minutes will be communicated to users prior to the cutover.

If departments plan to add or move network services over the next 8 to 10 months they will need to work closely with NTS

> If departments plan to add or move network services over the next 8–10 months they will need to work closely with NTS and allow for scheduling conflicts and longer lead times. Building specific service freezes will go into effect approximately two weeks before a building is scheduled to be cutover and will last approximately three weeks. Building freezes are needed in order to prepare for cutovers and to help eliminate problems should they occur during the cutover.

> The month of September will be particularly busy for NTS as they complete several critical technical tasks needed to ensure a smooth building-by-building cutover to the new network. Please consider delaying any new requests for higher speed network service or large network moves until after September.

> Thank you for your support and cooperation.

> Sincerely, Steve Cawley, Associate Vice President and CIO

■ Tips from 1-Help, OIT's Technology Helpline

Get Teaching with Technology Help from the DMC

The Digital Media Center (DMC) provides a wide range of services, programs, projects, and online resources to help instructors use technology to enhance learning. Updates about many of our activities over the last academic year are provided below. To get details and learn about all of our support efforts, visit our web site at http://dmc.umn.edu.

▼ Services

Help from consultants available

DMC consultants helped instructors with design, development, and evaluation issues at least 250 times last year. We helped instructors identify possible learning activities, select the technology (such as WebCT tools or streaming video) that best supports these activities and plan associated assessment and evaluation strategies. We also guided instructors through the development process and helped them troubleshoot problems encountered while constructing and teaching with activities such as online quizzes.

To see examples of how campus instructors have used educational technology, see the case studies in the Exemplary Projects section of our web site; the studies include details about the support we provide to instructors. See http://dmc.umn.edu/projects/.

We will continue to be available to consult with campus instructors for no charge anywhere on campus. To schedule an appointment at your or our office, contact us at dmc@umn.edu or 612-625-5055.

Updated Faculty Toolkit software available

Many instructors obtained free and reduced-price multimedia software through the Faculty Toolkit service last year. Again this year the toolkit will be made available to University tenure-track faculty members on all campuses. Many of the applications have been upgraded to new versions. Instructions about how to obtain the software are available on the DMC web site at http://dmc.umn.edu/toolkit/.

New TEL short courses offered

DMC and Academic and Distributed Computing Services staff members offered several new technology-enhanced learning (TEL) short courses last year. Some will again be offered this year along with several newer ones (in addition to many of our past offerings):

- TEL: Active Learning With PowerPoint
- TEL: Designing Course Content for Online Delivery
- TEL: Fostering Online Communication and Collaboration
- TEL: Funding TEL Projects

- WebCT Vista 3 Faculty Orientation
- WebCT Vista 3 Student Orientation
- WebCT Vista 3: Creating Basic Course Web Sites

The DMC and ADCS also offer customized TEL workshops. For more information about our scheduled and customized classes, visit http://dmc.umn.edu/training/.

Seminar series featuring panel discussions of current TEL issues continues

Last year, University of Minnesota instructors presented their technology-enhanced learning (TEL) work to the University community at a series of free seminars featuring a moderator and panel discussing broad technology and pedagogy issues related to specific topics. The series will continue this year; the fall sessions are described in Table 1.

For more information, see http://dmc.umn.edu/seminar-series/.

Table 1: Fall TEL Seminars

Dates	Place	Topic	Participants
October 8, 2004	Carlson School of Management Bldg., Room 2-213	Simulations and Virtual Field Trips	Moderator: Nora Paul Panelists: Cryss Brunner, Robert Hardy, Michael Maddaus, and Nigel Wattrus
November 1, 2004	Walter Library, Room 402	Enhancing Student Learning With Self-Assessment Activities	Moderator: Kristen Janke Panelists: Simon Hooper, Vickie Mikelonis, Ben Munson, and Susan Rose
December 7, 2003	Walter Library, Room 402	Topics in Copyright and Intellectual Property	Moderator: Dan Donnelly Panelists: John Butler, and Jessica Reyman

Campus faculty and students survey results available

We worked with staff members from several colleges to survey Twin Cities campus faculty members and students about the use of educational technology on campus and to publish a report about the results. To see the survey and report, visit our web site at http://dmc.umn.edu/surveys/.

WebCT Vista available

Over the past academic year, OIT staff members began pilot testing a new version of WebCT, Vista 2.0, with a select group of faculty members and students. Vista includes many new and enhanced features. In August, we upgraded Vista 2.0 to Vista 3.0.2. For details, see the "WebCT Vista 3 on the Horizon" article in this issue.

▼ Programs

Third year of Bush Foundation initiative

Bush Grant: Since March 2001, DMC and CTLS (Center for Teaching and Learning Services) consultants have been involved in the "Enhancing Student Learning Through Innovative Teaching and Technology Strategies" Bush grant. In reviewing the three-year program evaluation findings, the four University of Minnesota campuses involved in this grant have submitted a three-year renewal proposal. The campuses have used the following three goals to unite their efforts to extend and/or adapt the grant efforts:

a) align grant efforts with current campus initiatives to keep student learning in the forefront;
b) foster a scholarly and collaborative approach to addressing student learning issues; and c) integrate the assessment of student learning and the evaluation of student learning initiatives in the campus mainstream.

See http://www.umn.edu/ohr/teachlearn /innovative/.

Five instructors begin terms as DMC faculty fellows

The following instructors received 2004–05 fellowships to research the impact of digital technology on teaching and learning and to design and share innovative teaching and learning processes:

- Lee-Ann Kastman Breuch, Ph.D, Associate Professor, Department of Rhetoric
- Angela Carlson-Lombardi, Ph.D., Teaching Specialist, Department of Spanish and Portuguese Studies
- Simon Hooper, Ph.D., Associate Professor, Department of Curriculum and Instruction
- Donna Pearson, Ph.D, Research Associate, Department of Work, Community, and Family Education
- Edward Ratner, M.D., Associate Professor, Department of Medicine

Professorate (Next Gen) program

New faculty members will get help developing the theory and practices needed for teaching in the TEL classrooms of the present and the future again this year through the Next Gen program sponsored by the Office of the Executive Vice President and Provost and OIT and implemented by the DMC. See http://dmc.umn.edu/fellowship/.

Educational Technologists Forum meetings

With the College of Education and Human Development we continued to sponsor meetings for interested campus faculty members, staff members, and graduate assistants who help to create educational technology activities and materials. Meetings will continue every other month throughout the coming academic year. For more information, see http://dmc.umn.edu/etf/.

TA training updated and offered for credit or noncredit

ADCS/DMC staff members began offering the popular TA training program both as a noncredit program and a 2-credit course, Nurs 5800, last year. Participating TAs are sponsored by faculty members and learn about web-based teaching and learning strategies and web design and development techniques. Both the noncredit and credit versions again will be offered this year. In addition, the curriculum has been updated. For more information, see http://dmc.umn.edu/ta-web.shtml.

Thousands watch "Tech Talk" TV show; third season planned

Last year staff members from ADCS, DMC, the College of Continuing Education, and University Relations continued to produce "Tech Talk," a TV show about the digital technology we encounter in our everyday lives. A third season will be broadcast in the spring. For more information, see http://www.techtalk.umn.edu/.

▼ Projects

Breeze server pilot projects completed and regular support begins

In 2003, staff members from OIT and several colleges conducted tests to see if members of the University community could use Macromedia's Flash Communication Server to host web conferences and support multiuser online learning environments. We concluded that although it potentially could be used, Macromedia's Breeze might be a more suitable option. In the spring of 2004, we tested how Breeze could be used by members of the University community to deliver online multimedia presentations, host web conferences, and support multiuser online learning environments. We concluded that it was, indeed, the best choice.

OIT staff members plan to provide the entire University community with access to Breeze this fall. For details, see the Flash Communication Server Tests page at http://dmc.umn.edu/fcs/, the Breeze Server Project page at http://dmc.umn.edu/bsp/, and our Breeze Support site at http://breeze.umn.edu.

In addition, this fall OIT offers a Breeze Orientation short course; see http://training.micro.umn.edu /ShortCourses/ClassDetail.cfm?ClassID=1807.

Nursing evaluation project nationally recognized; instrument is being revised

As part of an effort to evaluate a large project funded by the federal Health Services and Resources Administration, a group of faculty members in the School of Nursing and our consultants collaborated in conducting the formative evaluation of 16 online graduate nursing courses. Last year, nursing faculty members and DMC consultants presented the results at several conferences. Colleagues on campus and from other states also are adapting our evaluation instrument for their own use. Nursing faculty members and DMC consultants currently are revising the instrument so it can serve as an even better model for similar projects. For details, see our web site at http://dmc.umn.edu/nursing-evaluation/.

▼ Online resources

Spotlight Issues and TEL project case studies

In October last year, we began publishing new information on our web site each month about a current educational technology issue discussed at sessions of the Technology-Enhanced Learning (TEL) Seminar Series, in our classes, or at our program or project meetings:

- brief overviews of the issues,
- citations to related research literature,
- information about related campus resources,

- summaries of the seminars, and
- profiles of related campus projects.

The web pages have been visited hundreds of times, and we will continue to publish them each month. The first three topics will be the same as the fall TEL seminars described above. For details, see http://dmc.umn.edu/spotlight/.

"Tech Talk" site wins award

We continued to produce the "Tech Talk" TV show web site. Each week during the second season, we published viewers' questions and answers from OIT experts. In May, the site was awarded a Gold award by the University of Minnesota Communicators Forum for receiving the highest score by freelance communications professionals and those from the University of Minnesota or other nonprofit, government, or education institutions. See the site at http://techtalk.umn.edu.

DMC and "Tech Talk" news available on myNews channels

We published monthly announcements about DMC and "Tech Talk" news on the myU University of Minnesota Public Portal and will continue to do so this year. To learn how to subscribe to the channel see http://dmc.umn.edu/contact.

WebCT support site has new content and look

We added Vista information to the WebCT support web site and changed the interface of the site to make it compatible with the Web Depot template University Relations distributes to encourage consistency among University web pages. We also simplified the site navigation; but the content, organization, and page URLs are still the same. See the site at http://webct.umn.edu.

◼ Christina Goodland, Digital Media Center, http://dmc.umn.edu

WebCT Vista 3 on the Horizon

The Office of Information Technology (OIT) has provided access to and support for WebCT courseware since 1998. In that time, WebCT has become as familiar to faculty members and students as the mall and the Washington Avenue bridge. At least 1,000 course sites are created every semester that are used by approximately 30,000 students.

Currently Supported Versions

Currently, we are supporting two versions of WebCT: Campus Edition and Vista.

Campus Edition

Campus Edition has been in use on campus since May 1999.

Vista 3.0.2

Over the past academic year, we began pilot testing Vista 2.0 with a select group of faculty members and students. They responded favorably to the experience, indicating that Vista was easy to use after they got started, had an improved workflow, and featured a better interface.

WebCT Vista also includes many new and enhanced features such as content sharing capabilities for faculty members, better discussion and collaboration tools, and an improved grade book.

Vista also reflects the industry's movement towards systems that are interoperable and compliant with emergent national standards. It makes it possible for future developers to transport their course sites from campus to campus no matter which course management systems they use, to create or plug in custom tools, and to import the Vista grade book into other learning management systems.

In August, we upgraded Vista 2.0 to Vista 3.0.2. The new version includes tool enhancements and a feature that helps students and faculty members configure their computers and web browsers for use with Vista.

Vista 3.0.2 will run in a clustered environment, meaning that multiple servers will distribute the workload so that users can enjoy faster and more reliable service.

Future Support

Over the coming academic year, we will provide access and support for both Campus Edition and Vista 3.0.2 and develop more Vista training opportunities and

documentation. By fall 2005 we plan to exclusively support WebCT Vista.

For more information and updates, see the University of Minnesota WebCT support site at http://webct.umn.edu.

◼ Kurtis Scaletta, Digital Media Center, http://dmc.umn.edu

DMC Spotlight Issue

Simulations and Virtual field Trips

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.

October TEL seminar

With computers, faculty members, and instructional designers can combine media in simulated real-life environments and control students' interactions with these environments to facilitate the type of active inquiry described by Jean Piaget in his article, "Cognitive Development in Children": "To know an object is to act on it. To know is to modify, to transform the object, and to understand the process of this transformation, and as a consequence to understand the way the object is constructed" (1964, p. 176). Using technology-enhanced simulations and virtual environments, students can

- observe and/or collect data on a rare or remote event, environment, or process;
- juxtapose visible and invisible data;
- facilitate the manipulation of environmental variables;
- map the influence of those changes on subsequent processes; and
- practice skills that are too expensive, difficult, or dangerous to practice in real life.

Computers not only enable instructors to provide safe, consistent, and infinitely repeatable exposure to a potentially rich virtual environment, they also enable both instructors and students to observe, record, and analyze performances and improve post-performance assessment and debriefing.

To learn more, please join us at the next TEL seminar:

Thursday, October 8, 2004, noon to 1:30 P.M., Carlson School of Management building, room 2-213.

The TEL grant winners below will discuss how they are developing and teaching with a variety of such technology-enhanced simulation and virtual field trip activities:

- C. Cryss Brunner, Department of Educational Policy and Administration, Twin Cities campus;
- Robert Hardy, Veterinary Clinical Sciences, and Thomas Fletcher, Department of Veterinary and Biomedical Sciences, Twin Cities campus;
- Michael Maddaus, Department of Surgery, Twin Cities campus; and
- Nigel Wattrus, Department of Geological Sciences, Duluth campus.

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

▼ Preliminary readings

■ Situated cognition and anchored instruction

- Bransford, J. D., et al. "Anchored Instruction: Why We Need It and How Technology Can Help." *In Cognition, Education and Multimedia: Exploring Ideas in High Technology*, edited by Don Nix and Rand Spiro, 115-141. Hillsdale, NJ: Erlbaum Associates, 1990.

- Bransford, J. D., and B. S. Stein. *The Ideal Problem Solver* (2nd edition). New York: Freeman, 1993.

- Brown, J. S., A. Collins, and S. Duguid. "Situated Cognition and the Culture of Learning." *Educational Researcher* 18:1 (1989): 32–42.

- Cognition and Technology Group at Vanderbilt (CTGV). "Anchored Instruction and Its Relationship to Situated Cognition." *Educational Researcher* 19:6 (1990): 2–10.

- _____. "Anchored Instruction and Situated Cognition Revisited." *Educational Technology* 33:3 (1993): 52–70.

- Etheris, Ahmad Ibrahim, and Seng Chee Tan. "Computer-Supported Collaborative Problem Solving and Anchored Instruction in a Mathematics Classroom: An Exploratory Study." *International Journal of Learning Technology* 1:1 (2004): 16–39.

- Piaget, Jean. "Cognitive Development in Children: Development and Learning." *Journal of Research in Science Teaching* 2:2 (1964): 176–186.

Bransford and colleagues, Brown and colleagues, and the Cognition and Technology Group at Vanderbilt (CTGV) build on the work of Piaget and other cognitive psychologists who suggested that learning is most effective when embedded in a realistic (also called 'authentic') problem-solving context. They propose that cognition and learning are intimately bound with activity; i.e., the 'substance' of learning-the information, concepts, and relationships we commonly think of as constituting knowledge—is fundamentally inseparable from the situations in which it is learned and, later, practiced in real world contexts. Whereas traditional school activities have tended to emphasize conceptual/theoretical activities divorced from the real world contexts in which those theories are applied, these authors generally favor 'authentic' learning activities in which students address problems structured like those confronting real world expert practitioners. Using professional practice as a framework, they advocate using collaborative group work, peer learning, and iterative problem-solving activities.

Ahmad Ibrahim Etheris and Seng Chee Tan provide a detailed illustration of how authentic learning activities might be structured and supported in practice.

■ Educational games and simulations

Abt, Clark. *Serious Games*. New York: Viking Press, 1970.

> The first extended exploration of the educational value of games and simulations, Abt's book provides a useful introduction to the potential motivational, cognitive, and social benefits of using games to support learning.

Aldrich, Clark. *Simulations and the Future of Learning: An Innovative (and Perhaps Revolutionary) Approach to e-Learning*. San Francisco: Pfeiffer, 2003.

> Despite the title, this seems aimed primarily at the corporate training market. Aldrich does, however, draw some lessons from the video game market that may prove helpful in designing more effective instructional simulations. For example, he emphasizes the importance of authentic contexts, appropriate challenges, realistic constraints (e.g., limited financial, informational, temporal, or human resources), non-linearity, and replayability.

Bell, Benjamin, Ray Bareiss, and Richard Beckwith. "The Role of Anchored Instruction in the Design of a Hypermedia Science Museum Exhibit," 1987, ERIC ID: ED363636.

> Bell and his colleagues developed a system for contextualizing knowledge about genetics and sickle cell disease by casting museum visitors in the role of genetic counselor. The inquiry process is supported by virtual laboratory tests, simulated client interviews, and an on-demand expert knowledge system that visitors may consult as needed. This anchors instruction and provides a framework for improving both content understanding and concept retention. In their report, they provide a useful description of how to develop an effective simulation scenario and illustrations of how that scenario was enacted in virtual lab and interview interfaces.

Gee, James Paul. *What Video Games Have to Teach Us About Teaching and Learning*. New York: Palgrave Macmillan, 2003.

> Gee suggests that video games have a lot to tell us about how we might better teach important cognitive concepts like identity formation, the semiotic representations of identity in "embodied experience," etc. Although not specifically about the development of educational simulations, his book includes a great deal of useful information about how to order and frame problems in simulations. For instance, he details how gradual increases in the level of challenge can motivate students without overwhelming them and how appropriately timing the release of background information can improve understanding and retention.

Greenblat, Cathy Stein. *Designing Games and Simulations: An Illustrated Handbook*. New York: SAGE, 1988.

> Although aimed principally at the paper-and-pencil social science game market, Greenblat's guide provides a great deal of useful information that will be of interest to developers of technology-enhanced simulations, such as how to design simulation scenarios; develop game and simulation components; run the simulation experience; and manage outcomes (by debriefing and assessing participants, etc.).

Vincent, Andrew, and John Shepherd. "Experiences in Teaching Middle East Politics via Internet-based Role-Play Simulations." *Journal of Interactive Media in Education* 98:11 (1998). Online at http://www-jime.open.ac.uk/98/11/vincent-98-11-t.html (visited August 23, 2004).

> Andrew Vincent and John Shepherd provide a thoughtful analysis of why using technology in a Middle East policy-making simulation improved students' learning experiences. They provide a great deal of useful detail about scenario development and administration as well as examples of student feedback. They describe the instructional goals and objectives, illustrate aspects of the simulation, and detail the instructor's assessment methods in a video available online at http://www-jime.open.ac.uk/98/11/vincent-movie.html.

■ Virtual field trips

Barta-Smith, Nancy A., and James T. Hathaway. "Making Cyberspaces into Cyberplaces." *Journal of Geography* 99:6 (2000): 253-265.

> Based on phenomenological and semiotic theory, the authors consider the full range of experiences that make up a real-life field trip and how the metaphors underlying the design of virtual field trips may accommodate such experiences or make them impossible. They include recommendations about how to develop pedagogically rich virtual field trips such as: create opportunities for learners to wander, interact with the virtual environment, and provide a context for the engagement. While too theoretical to serve as specific guidelines for designers, these recommendations are interesting and important.

Spicer, J. J., and J. Stratford. "Student Perceptions of a Virtual Field Trip to Replace a Real Field Trip." *Journal of Computer Assisted Learning* 17 (2001): 345–354.

> In this article, the authors discuss virtual field trips used as replacements for real-life field trips based on a biology lesson for undergraduate students rooted in an ecological context. Their study revealed both how students respond to virtual field trips as well as how designers can create enjoyable virtual experiences and instructors can make good use of such experiences. For example, most students liked the experience, but few felt it should replace a real field trip, and most would prefer a virtual field trip be used to prepare for a real field trip. Also, few students felt the experience was personal or truly interactive, but most felt it was interesting and worthwhile. The implications are important, but the narrow range of virtual experiences considered limit their usefulness.

Tuthill, Gail, and E. Barbara Klemm. "Virtual Field Trips: Alternatives to Actual Field Trips." *International Journal of Instructional Media* 29:4 (2002): 453–468.

> Tuthill and Klemm describe the tension between the advantages and disadvantages of direct field experiences. On the one hand they can connect classroom theory and real world practice; expose students to realistically messy identification and analysis problems; and motivate them through exposure to relevant, practical experiences; on the other hand it can be difficult to transport students to remote locations; to ensure that they can hear

and see items of interest; and to diminish cognitive complexity as students attempt to "simultaneously [take] in their surroundings [while] making detailed observations, [listen] to the speaker, and [take] good notes while in the field" (p. 454). The authors believe technology offers an opportunity to mitigate some of these problems while retaining many of the advantages. Their experience, however, suggests that not all virtual field trips are created equal. Those commercially available off-the-shelf may prove to be less effective than field trips tailored to specific course topics.

■ **Examples**

University of Minnesota instructors have developed a number of technology-enhanced simulation and virtual field trip activities. Several are highlighted in the Exemplary Projects section of the Digital Media Center web site at http://dmc.umn.edu/projects /index.shtml, including the following.

Perry, Jim, Steve Simmons, and Toni McNaron. "Campus Quest: A Case-Based Approach to Environmental Management" TEL grant proposal. Minneapolis: University of Minnesota, 1999. http://dmc .umn.edu/small-grants/1999/prop21.shtml.

The investigators developed a pair of CD-ROM-delivered decision cases for agronomy and natural resource management students. The first simulates the process of policy formation. Students use digital resources as they gather information, evaluate potential strategies, and compose a memo proposing a solution to the problem posed. The second is an entirely self-contained decision-making simulation. Students select a series of policy goals, allocate finite budgetary resources, and react to a series of realistic events (including cost overruns, natural and environmental variables, and political/bureaucratic roadblocks). For details and illustrations of some key interactions, visit http://dmc.umn.edu/projects/campus-quest /index.shtml.

Buhr, Brian, Chris Scruton, and Christina Goodland. "Using WebCT and Basic Software Tools to Teach Futures Trading." In *Faculty Guide for Moving Teaching and Learning to the Web*, 2nd ed., by Judith V. Boettcher and Rita-Marie Conrad. Forthcoming from the League for Innovation in the Community College.

Brian Buhr developed a WebCT-delivered trading commodities simulation that mimics conditions in the real market. Students analyze market conditions, observe trading behavior in both the classroom and the real-world markets, develop buying /selling strategies, and communicate the rationale for these strategies to Buhr and their peers. For details and illustrations of some key elements, visit http://dmc.umn.edu/projects/trading-sim /index.shtml.

▼ **Campus resources**

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

- Find out more about how games and simulations can be used for teaching and learning on our web site at http://dmc.umn.edu/strategies /games.shtml.

- Meet with one of our consultants to get help planning and designing simulations and virtual field trips. See http://dmc.umn.edu/consulta-tions/.

- Get an introduction to software you can use to create learning objects (such as simulations) in our Flash MX 2004: Creating Learning Objects short course. See http://training.micro.umn.edu /ShortCourses/ClassDetail.cfm?ClassID=1870.

- See examples of Macromedia Flash learning objects in our Learning Objects section at http://dmc.umn.edu/objects/index.shtml.

- Get more information about learning objects on our Spotlight Issues Learning Object Technologies page at http://dmc.umn.edu/spotlight/objects/.

- Find out about the activities of the Game Research and Virtual Environment Lab, a project of the Institute for New Media Studies, the Digital Technology Center, and the DMC, at http://www.inms.umn.edu/gravel/.

▼ **Other resources**

Links to the panelists' TEL grant proposals will be available on the DMC web site a week before the seminar at http://dmc.umn.edu/spotlight /simulations.shtml. A summary of the seminar, a complete bibliography, and profiles of the panelists' projects will be available on that page shortly after.

▉ Chris Scruton, Kurtis Scaletta, and Christina Goodland, Digital Media Center

Top Ten Things You'll Love About the University Libraries

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

As Fall term begins, we all have dozens of details and priorities that need attention. As you sort out your teaching, research, and class obligations, we want to remind you of how important the University Libraries will be to your success this year. Whether you are an incoming freshman or a seasoned researcher, our Libraries hold promise to help you do your best. Here are just ten important reasons to make the Libraries your ally.

> RefWorks is amazing! It can create a bibliography in seconds and in whatever format is required by your paper.

1. RefWorks renewed!

Last year, the Libraries began a one-year trial of the important research tool, RefWorks. If you haven't used it, you've been missing a major opportunity to improve the organization of your research citations and the creation of bibliographies.

RefWorks is amazing! It can create a bibliography in seconds and in whatever format is required by your paper. No more long hours struggling through style manuals to figure out how to cite a working paper, web page, or article.

The Libraries renewed our contract for this key resource for another year, making this key tool a 'must have' for everyone here on campus. The Libraries offer

- workshops to get you started: http://www.lib.umn.edu/registration/
- good information on our RefWorks web page: http://www.lib.umn.edu/refworks/.

Give it a try!

2. Reference 24/7

Whether you have a question in the middle of the night or from a foreign country, as long as you have Internet access, you can ask the talented reference staff of the Libraries questions anytime and get a quick response. Check it out at http://infopoint.lib.umn.edu/.

3. Blogs: U Think

Want to set up your own blog or investigate some of the blogs here on campus or across the world? The University Libraries has led the country in opening up a free channel for anyone on campus to set up their own blog or to find existing blogs on the Internet.

Called U Think, this service is available to the faculty, staff, and students of the University of Minnesota Twin Cities and is intended to support teaching and learning, scholarly communication, and individual expression for the U of M community. All you need to login and start blogging is your U of M Internet ID

> The University Libraries have been an integral part of the life of our campus since 1869, when University President William Watts Folwell established the University Library.

and password. For more information, or to set up your own blog, go to http://blog.lib.umn.edu.

4. Assignment calculator

The average student at the University takes three or four classes per term, each with multiple assignments. Often competing deadlines and other pressures make it easy to forget a key deadline in getting research completed and your paper done on-time and as good as you want it to be. The Assignment Calculator is a wonderful tool to help students stay on target.

The University Libraries developed this tool in collaboration with the CLA Student Writing Center, Center for Teaching and Learning Services, and the Center for Interdisciplinary Studies of Writing.

To use this tool, students just need to go to the Assignment Calculator web page and enter today's date, the date the paper is due, and the general subject area in which the research will be done. Then push a button and a calendar of key dates will be made telling you when you should begin and finish your literature searches, order interlibrary loans, begin the writing process, etc.

The Assignment Calculator even includes key links to the resources on campus that will help you succeed in each step of the research and writing process. You can set the system up to send you private e-mail reminders as the semester progresses, too, to give you a gentle nudge to stay on task.

Give it a try. See http://www.lib.umn.edu /help/calculator/.

> Invest as little as an hour of your time in a workshop.

5. Workshops

The University Libraries offer dozens of workshops each year, targeted to specific databases, resources, or services. These are free and with an investment of as little as an hour, we can have you ready to hone your research skills and improve your work.

Check out the lists of current workshops at: http://www.lib.umn.edu/registration.

> The University Libraries have a talented staff of specialists in virtually every area of study that might interest you.

6. Go one-on-one with an expert

The University Libraries have a talented staff of specialists in virtually every area of study that might interest you. These experts not only choose our materials and manage our collections; but they also teach workshops, lecture in classes, and meet with anyone interested in doing research in their fields. For a complete listing of these subject specialists, go to http://www.lib.umn.edu/about/selector.phtml.

Give us a call. We'd be happy to help you anytime!

7. Collections

The University Libraries is one of the largest academic research institutions in North America. Our collections are housed in five major facilities and eleven branch sites here on campus. Our holdings include more than 6 million print volumes, 45,000 serial subscriptions, 5.7 million microforms, 2.6 million government documents, and 400,000 maps.

Unless you leave Minnesota for an even larger academic research institution, this may be the largest, most extensive collection of information, knowledge and artifacts that you will ever have access to. The portal to all these collections and materials is through our web page — a page you'll want to bookmark and use: http://www.lib.umn.edu.

> Point to Point provides delivery of currently available books to a library on a different bank or campus than the library that owns the material.

Did you know that the University Libraries is one of the largest academic research institutions in North America?

8. Access

Getting the information you need, when you need it is always a critical issue. The Libraries have developed a complete set of services to help you locate and get whatever you need when you need it.

Free interlibrary loans of materials not in our collections can be obtained from libraries across the world: https://www.lib.umn.edu/ordering/ill.phtml/.

Point to Point provides delivery of currently available books to a library on a different bank or campus than the library that owns the material. This service, only available for students, faculty, and staff at the University of Minnesota, allows you to access materials without having to physically travel through our different libraries. At no charge, the materials come to you, at whichever library location is most convenient. See https://www.lib.umn.edu/ordering/p2p.phtml.

These are just two of the wonderful services available. Visit our web page to learn about more services to make your time here more productive: http://www.lib.umn.edu.

9. Places

The various collections and libraries on campus offer places to meet, to study, to read, to surf the web, or just hang out. In your time between classes or whenever it is convenient, our Libraries offer a place to reflect, think, or just 'chill out.' For maps and hours of our different sites, check out this web page: http://www.lib.umn.edu/about/hours.phtml.

Libraries offer a place to reflect, think, or just 'chill out.'

10. Information commons

This October, Wilson Library will open an important, innovative new service for our community: The Information Commons, which will be located on the first floor of Wilson Library. The Commons will be a melding of library reference support, writing tutors, and computing assistance where students can work on their research papers from start to finish.

Look for our grand opening in October, 2004. For updates on our developing Commons, check out this Web page: http://wilson.lib.umn.edu/reference/infocommons.html.

All that and more

The University Libraries have been an integral part of the life of our campus since 1869, when University President William Watts Folwell established the University Library and appointed himself as librarian. In the 135 years of our existence, we have grown in size and depth to become a major research collection and service for our campus and for the world.

Make the staff, resources, and services of our Libraries a partner in your work here.

As you get settled into campus life this fall, remember to make the staff, resources, and services of our Libraries a partner in your work here. Start by checking out our web page and stopping in one of our many facilities. Get to know us better! We are here to serve!

▼ 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 Accommodation 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

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