CLASSROOM ADVISORY SUBCOMMITTEE/SENATE COMMITTEE ON INFORMATION TECHNOLOGY – Joint Meeting
MINUTES OF MEETING
DECEMBER 4, 2006

[In these minutes: Central Classroom Technology Update, Planning Considerations in Large Classroom Design, Emerging Technologies in Classrooms Discussion]

[These minutes reflect discussion and debate at a meeting of a committee of the University of Minnesota Senate; none of the comments, conclusions or actions reported in these minutes represent the views of, nor are they binding on, the Senate, the Administration or the Board of Regents.]

PRESENT: CAS - Ken Heller, chair, Caroline Rosen, Steve Fitzgerald, Bernard Gulachek, Jeffrey Lindgren, Jay Hatch, Jean King, Thomas Michaels, Roger Miller
SCIT - Nancy Herther, chair, Dale Swanson, Sue Van Voorhis, Linda Jorn, Joan Hughes, Andy Lopez, Stuart Speedie, Jim Waddell, Mahmoud Sadrai

REGRETS: CAS - Roberta Juarez, Lisa Norling
SCIT - Mark Sanders, Deanette Schmidt, Eric Celeste, Alan Ek, Douglas Ernie

ABSENT: Steve Pauling
SCIT - Stephen Cawley, Greg Laden, Bonnie Westra

GUESTS: Office of Classroom Management representatives:
Toni Pangborn, classroom support manager
Jim Gregory, classroom technical support services manager
Jeremy Todd, classroom planning and projects manager
John Knowles, classroom support faculty instructional technical coordinator

OTHERS ATTENDING: John Miller

1). Steve Fitzgerald, director, Office of Classroom Management, began by providing members with a central classroom technology update. He noted that the Technology Upgrade Plan was a plan devised to address the unmet technology needs of students and faculty in central classrooms.

Mr. Fitzgerald summarized the goal of the Technology Upgrade Plan and noted that the purpose was to give faculty and instructional staff the technological tools from which to choose in designing the pedagogy of their individual courses. With the matriculation of students accustomed to technology in classrooms, this became increasingly necessary.

Members' attention was turned to a slide, which detailed the Projection Capable Classroom Standard. Basically this Standard is the infrastructure within a room that allows content to be projected for the instructional requirements of the faculty member, noted Mr. Fitzgerald. This infrastructure was purposefully designed to not be cutting

edge because it needed to be scalable and affordable; thus, the decision to go with a laptop-based system. A laptop-based system allows instructors to be their own configuration manager. Detailed information concerning the Projection Capable Classroom Standard can be found on the Office of Classroom Management (OCM) website at http://www.classroom.umn.edu/cts/projector_capable_classroom.asp.

The Projection Capable Classroom System has been through several lifecycle iterations. With these iterations comes smarter networking of classroom systems e.g. remote monitoring of classroom technology system performance, hotline operator, theft notification direct to UMPD, etc.

As of fall 2006, 84% or 259 central classrooms are fully technologically equipped and meet the Projection Capable Classroom Standard. Feedback from faculty has been extremely positive.

Mr. Fitzgerald pointed out that Classroom Technical Services wears two hats, one as the technology department within OCM and the other as an ISO, which sells its services across campus. Departments and other users across campus have purchased from Classroom Technical Services 125 additional systems for their own spaces, which meet the Projection Capable Classroom Standard. This brings the total number of rooms on campus with Projection Capable Classroom Standard technology to over 400.

Future technology options under review include, but are not limited to:

- Tablets versus writing boards
- Asynchroneous Low-End Video Steaming (class capture)
- Videoconferencing
- Ubiquitous student personal computing devices
- Higher bandwidth wireless
- Impact of retaining versus removing legacy teaching technology

Whatever future technology decisions are made, consideration needs to be given maintaining affordable and scalable technology infrastructure that meet the needs of faculty and students. In addition, the technology must be user-friendly, flexible, modular and growth-capable.

Technology Upgrade Plan challenges:

- Planned upgrade completion by 2004 has slipped to 2008; attributable in large to a shift away from initial installations to sustainability.
- Ongoing need for recurring funding for lifecycle maintenance, equipment replacement and support. While recurring funding improved in FY06, it remains a concern. One-time and leveraged funding programs with colleges have been keys to a successful program.

Questions/comments from members:

- How is OCM funded? Mr. Fitzgerald noted that OCM is part of central administration, and, therefore, centrally funded. The Office of Classroom Management does not receive technology fees. Under the new budget model, a

general-purpose cost pool has been established to fund OCM and other central administration departments. Budget requirements for OCM per year are approximately $4.5 million, recurring. There are 32 OCM staff.

- Please explain OCM's leveraged funding collaborations with colleges and units. Mr. Fitzgerald briefly noted that two programs have been established:
    1. A department turns over its classroom to central administration. Then, in exchange for priority scheduling, the departmental classroom receives a technology upgrade and central assumes the lifecycle cost responsibilities for the room.
    2. A department comes forward with matching funds to upgrade a classroom. The classroom is bumped to the front of the queue for a technology upgrade installation and the department is given priority scheduling in this room.
- Is OCM adequately funded? Mr. Fitzgerald does not expect the luxury of full funding, but stated that OCM's funding is sufficient. Funding is one of the reasons that scalability of systems plays such an important in being able to deliver quality services.
- Does OCM collect data on equipment usage in central classrooms? As OCM has implemented a greater number of network systems, it has been able to collect usage data. However, the challenge has been in integrating the data to make it meaningful.
- Recognizing that VHS technology is being replaced by DVD technology, a plea to not remove VHS technology was made. Mr. Fitzgerald stated that OCM recognizes the legacy technology problem. While OCM is striving to install sophisticated technology, it is also being asked to retain older, outdated technology.
- What will it take to make classrooms truly network capable from a student perspective? It was noted that currently 274 central classrooms are wireless. When it comes to making classrooms completely network capable for students, OCM is faced with the issue of the limited number of access points in central classrooms and bandwidth limitations that are unable to support multiple access points. Additionally, electricity outlets are another issue. Clearly, these are all cost issues. The conundrum that OCM is dealing with is whether the industry will solve certain issues e.g. battery life for laptop computers versus retrofitting classrooms with more electrical outlets.
- In terms of retrofitting classrooms for electricity, would it make more sense to put power in the floor as opposed to the furniture? There are two issues associated with putting power in the floor ?????
- A member recognized the work that OCM has done to bring classrooms to a modern level of technology. It was noted that faculty and staff benefit from these enhancements everyday.

III). Next, Jeremy Todd, classroom planning and projects manager, using a PowerPoint presentation provided information on planning considerations in large classroom design projects. He highlighted the following:

- Large classrooms are categorized as rooms that have 50 or more seats.

- Classroom design objectives include:
    - Meet the needs of faculty and students.
    - Design space for programmatic needs and not for infrastructure requirements.
    - Create an adaptive space as opposed to a fixed environment in order to respond to future needs.
    - Provide "projection-capable classroom" technology.
    - Build for longevity.
    - Provide sightlines, acoustics and lighting that support student learning.
    - Improve access for all persons.
    - Support increased classroom utilization and sustainability.
    - Meet fire/life/safety and security needs.
- There is a new building process being used, which integrates direct input from OCM into classroom projects. The process is more integrative and driven by a more informed view of the expected outcome than the previous process, which was much more sequential with up and over communications, driven by less than complete and consistent requirements centered on the change of space.
- Classroom design environment considerations include:
    - Project type (scope) – new construction, rehabilitation and renovation, renewal and adaptation.
    - Existing classroom inventory (quantity).
    - Facilities Condition Assessment audits (quality).
    - Identified classroom features (programmatic).
    - Course scheduling needs (utilization).
    - Classroom standards (performance).
- OCM benchmarks large classroom design projects against SCALE-UP (Student Centered Activities for Large Enrollment Undergraduate Programs), the establishment of highly collaborative, hands-on, computer-rich, interactive learning environments for large-enrollment courses. Examples cited of SCALE-UP projects were a MIT physics classroom and a classroom at North Carolina State University.

Following Mr. Todd's presentation, the committees engaged in a lengthy discussion related to large classroom design issues and emerging technologies in classrooms.

- Has consideration been given to installing coat racks in classrooms? While this is a question frequently raised by faculty, surveys indicate that when coat racks are made available, they are either not used, or, if they are used, they have a tendency to be vandalized.
- How much thought is being put into how a given space will be used 20 – 25 years from now? A significant amount of planning occurs. The Office of Classroom Management seeks input from the Classroom Advisory Subcommittee, faculty and staff among other groups and leverages this input against scalability issues of the 300 general-purpose classroom inventory.
- Because general-purpose classrooms need to incorporate scalability with innovation, in terms of looking ahead to the future, is there any posturing possible to make spaces that will meet the needs of all pedagogies? Are alternative e-

learning platforms such as Moodle being explored? The OCM goal is to have spaces that are as flexible as possible in order to accommodate as many disciplines as possible.

- Consideration should be given to creating a demonstration classroom, which incorporates new design elements. Faculty should then be given an opportunity to use this space and provide feedback.
- In planning for the future it is virtually impossible to plan for the type of teaching spaces and technology that will be needed. Therefore, flexible spaces that are inexpensive to gut should be built. This philosophy is very different from the old legacy buildings on campus, which were built to last and are incredibly expensive to reconfigure.
- How is distance education impacting classroom design planning? While distance education is becoming increasingly popular, many faculty want to build community with their students and convene their courses periodically throughout the semester. The Office of Classroom Management is in a unique position in that ????? With the increase in the number hybrid courses being held, the OCM scheduling system is being taxed as it attempts to optimize the use of the central classroom inventory.
- Who should faculty contact with unique classroom design ideas? No clear path exists to help faculty channel their ideas. It was noted that depending on the nature of the idea and where it would have the greatest impact would determine which department should be contacted e.g. Digital Media Center, Center for Teaching and Learning, OCM, etc.

Before closing, Mr. Fitzgerald suggested members visit an OCM webpage, "Classroom Food for Thought" (http://www.classroom.umn.edu/foodforthought.asp), which contains information on developments in U of M classroom technology, facilities, scheduling, support, planning and projects as well as links to recent developments, issues, pedagogy and potential resources.

IV). Hearing no further business, Professor Heller adjourned the meeting.

Renee Dempsey, University Senate