

## **Richness AND Reach**

A Strategic Plan for Teaching, Learning and Technology (TLT)

University of Maryland, Baltimore County

Also available at

<http://www.umbc.edu/oit/strategy/tltplan.pdf>

Academic Year 2007-2008

By

John Fritz

UMBC Office of Information Technology  
On Behalf of the Provost's IT Steering Committee

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b> .....	<b>4</b>
<b>RECOMMENDATION 1: STUDENT LEARNING OUTCOMES</b> .....	<b>7</b>
ISSUES.....	7
1. <i>Assessment</i> .....	7
2. <i>Resources</i> .....	7
OPPORTUNITIES .....	8
1. <i>Study "Most Active" Blackboard Courses</i> .....	8
2. <i>Faculty Incentives for Renewable TLT "Peer Mentoring" &amp; Scholarship</i> .....	8
3. <i>Hire a STEM Instructional Technology Specialist</i> .....	8
<b>RECOMMENDATION 2: TLT INFRASTRUCTURE &amp; BLACKBOARD</b> .....	<b>9</b>
ISSUES.....	10
1. <i>Costs</i> .....	10
2. <i>Enrollment</i> .....	10
3. <i>Course Creation</i> .....	10
4. <i>Performance &amp; Storage</i> .....	11
5. <i>Staffing</i> .....	11
6. <i>Innovation</i> .....	11
OPPORTUNITIES .....	12
1. <i>Hosting</i> .....	12
2. <i>Content System</i> .....	12
3. <i>Outcomes System</i> .....	13
4. <i>Maryland Blackboard Users Group (MDBUG) &amp; BbWorld Users Conference</i> .....	13
5. <i>Building Blocks</i> .....	13
<b>RECOMMENDATION 3: ONLINE &amp; HYBRID LEARNING STRATEGY</b> .....	<b>15</b>
ISSUES.....	15
1. <i>Credibility</i> .....	15
2. <i>Course &amp; Faculty Development</i> .....	15
3. <i>Administration</i> .....	15
OPPORTUNITIES .....	16
1. <i>Quality Matters</i> .....	16
2. <i>Hybrid Learning</i> .....	16
3. <i>Centralize Administration of New Online or Hybrid Programs</i> .....	16
4. <i>Impact of Online Video &amp; Digital Storytelling on Distance Education</i> .....	17
5. <i>Shining Light on Best Practices</i> .....	17
CAUTIONARY NOTES .....	17
1. <i>Support of Current Online Programs</i> .....	17
2. <i>Faculty Size &amp; Composition for Online Learning</i> .....	18
<b>RECOMMENDATION 4: LEARNING SPACE DESIGN</b> .....	<b>19</b>
ISSUES.....	19
1. <i>Collective Understanding About Learning Space Design</i> .....	19
2. <i>Inefficient Classroom Scheduling</i> .....	19
3. <i>Department vs. University-controlled Instructional Space Limits Availability</i> .....	20
OPPORTUNITIES .....	20
1. <i>Review and Revise Current Classroom &amp; Lecture Hall Design Standards</i> .....	20
2. <i>Library's Student Learning Commons</i> .....	20
3. <i>Immersive, Virtual Learning Environments</i> .....	21
4. <i>Audience Response Systems (aka "Clickers")</i> .....	21
<b>RECOMMENDATION 5: ASSESSMENT OF TLT STRATEGIC PLAN</b> .....	<b>22</b>
ISSUES.....	22

1. *There is no central understanding or assessment of TLT*..... 22

OPPORTUNITIES ..... 23

1. *Collaboration Between FDC and OIT* ..... 23

2. *Library’s Student Learning Commons*..... 23

3. *Learning From Our Past*..... 23

**APPENDIX A: TLT PLAN FACULTY ADVISORY GROUP NOTES (2/9/07) .....25**

**APPENDIX B: FACULTY SENATE COMPUTER POLICY COMMITTEE .....26**

AD HOC COMMITTEE ON TLT NOTES (11/9/01)..... 26

**APPENDIX C: CPC AD HOC COMMITTEE ON TLT NOTES (5/18/01).....27**

## EXECUTIVE SUMMARY

In his award-winning *Educause Quarterly* article<sup>1</sup>, “The 361° Model for Transforming Teaching and Learning with Technology,” Dennis Trinkle identifies 10 key steps any college or university would do well to follow:

1. Put learning first.
2. Align IT with institutional mission and culture.
3. Technology fluency is the new liberal art.
4. Invest more in people and support than hardware and software.
5. Good enough is good enough.
6. Support sustainable technologies.
7. Actively involve students.
8. Collaboration is essential.
9. Use technology to remove barriers.
10. Design space to enhance learning and build community.

While this plan attempts to apply Trinkle’s 361° Model to UMBC, it may be useful to reflect on changes since UMBC’s last IT Strategic Plan developed in Spring 2000.<sup>2</sup> For example:

- In 2000, the Office of Instructional Technology merged with University Computing Services to create the Office of Information Technology (OIT). Two new units, New Media Learning & Development, and Classroom Technology, supported online and face-to-face instruction, merging as one unit, Instructional Technology & New Media, in 2006.
- In 2001, an ad hoc workgroup of the Faculty Senate Computer Policy Committee (CPC) concluded that issues remained over coordination, development and support of faculty who wanted to integrate technology in teaching and learning (Appendix B). In 2007, a faculty advisory group for this strategic plan raised similar issues (Appendix A).
- In 2002, UMBC dealt with budget shortfalls by trying to preserve the academic core of faculty and programs, at the expense of support staff and/or operating funds. Currently, a proposed instructional technology support position has not been filled.
- From 2003 to 2005, the PeopleSoft Finance and Human Resource implementation dominated OIT’s strategic and operational resources, to the near exclusion of other institutional priorities identified in the 2000 IT plan.
- In 2005, the University System of Maryland (USM) Board of Regents recommended 10 percent of all undergraduate credits consist of “non-traditional” forms of learning including experiential learning, cooperative education and online or hybrid learning.
- In 2006, UMBC’s Self Study and 10-year Middle States Accreditation review identified continued reliance on part time faculty at a rate higher than our peers and disproportionate to our mission to provide a “distinctive undergraduate experience.”
- Currently, like many institutions, UMBC is reviewing how we define, measure and incorporate student achievement of learning outcomes into our institutional and program strategic plans. Similarly, to meet our public access obligations, the campus is reviewing enrollment management strategy to improve student recruitment and retention.

<sup>1</sup> See EQ, Nov. 4, 2005, pp. 18 or <http://www.educause.edu/LibraryDetailPage/666?ID=EQM0543>

<sup>2</sup> See UMBC Strategic Plan for IT available at <http://www.gl.umbc.edu/it/IT-plan.pdf>

While these issues represent sobering challenges, UMBC's TLT environment has also deepened and become more sophisticated since 2000:

- UMBC had two course management systems (CMS): WebCT and Blackboard, neither of which supported more than 75 courses a semester. UMBC now uses Blackboard exclusively to support more than 12,000 students and 800 instructors in 1,100 courses per semester. Also, in 2006, WebCT merged with Blackboard to become the dominant CMS vendor in higher education with more than 3,700 institutional clients worldwide.
- UMBC already had one distance education program, Emergency Health Services (EHS), which mailed videotaped lectures to students combined with brief, weekend residency classes for communication between students and faculty. UMBC now has three fully online masters program (including EHS, Information Systems and Instructional Systems Design), which use Blackboard almost exclusively. In fact, on average, online masters program courses account for half of UMBC's top 50 most active Blackboard courses every semester (see <http://www.umbc.edu/blackboard/reports>).
- A handful of lecture halls had permanently installed data projectors and TV/VCR combinations, and AV Services was just beginning to provide mobile data projector deliveries to classrooms. Now, 43 of UMBC's 73 registrar-controlled classrooms (including all lecture halls) have permanently installed presentation technology, and AV Services pays 18-20 students to make more than 5,500 mobile technology cart deliveries to un-equipped classrooms every semester. Anecdotally, AV Services reports many instructors are requesting projectors to show and use Blackboard in class.

## Recommendations

To face our issues and take advantage of recent opportunities, this plan recommends the following actions over the next five to seven years:

1. Assess and promote TLT practices that improve student learning; facilitate faculty awareness, networking, mentoring and training of or in these effective practices, especially in STEM disciplines or where large, introductory "gateway" courses have a history of high failure or dropout rates.
2. Invest more fully in the Blackboard architecture and community of practice, to support and elevate existing faculty usage from simple user and document management to increased interactivity and online assessment that improves student engagement, retention and recruitment.
3. Coordinate development, implementation and support of all proposed online degree programs. Collaborative partnerships could include academic departments (for subject matter expertise), the Faculty Development Center (FDC) and Office of Information Technology (for instructional design and technical support) and Continuing and Professional Studies (CPS) to administer and market the online program needs and experiences of students.
4. Develop a strategic plan for design of formal, informal and (where appropriate) virtual learning spaces. A good first step is to complete the three-year plan to equip all registrar-controlled classrooms with fixed presentation technology by FY11. In addition, we should use the new Performing Arts and Humanities building to challenge current and future assumptions about what it means to learn not just anytime, but also anywhere.

5. Establish an interdepartmental committee for Teaching, Learning and Technology charged with defining, implementing, evaluating and reporting institutional progress on recommendations 1 through 4. In addition to faculty representatives from all colleges and schools, the TLT committee should include support staff from the Library, OIT, FDC, Learning Resources Center (LRC) and CPS.

### **What's at Stake: Richness (Retention) AND Reach (Recruitment)**

If the university is willing to invest the time, effort and resources to win the hearts and minds of faculty (by meeting their fundamental requirement that technology improve student learning), their curiosity will get the better of them. Faculty are curious, inquisitive communicators always looking for a better way to connect with their students. Assess AND promote how technology adds richness to teaching and learning, and you will likely improve student retention as students become more engaged with faculty who are trying to solve traditional pedagogical problems or create new learning opportunities.

At the same time, if faculty are successful in their use of teaching, learning and technology, they may be willing to reach a wider audience, so long as they believe that audience can learn in a distributed or asynchronous (not in real-time) environment. If faculty can see for themselves that technology helps students learn effectively and efficiently in a traditional face-to-face (F2F) course, they may be more willing to experiment with virtual teaching environments such as hybrid or online learning. This can help the faculty (and the institution) by reaching new students who otherwise might not be able to access or learn in the traditional F2F environment.

Regardless of what tools are available now or in the future, UMBC's instructional technology strategy should be driven by the goals we have for teaching and learning generally. What do we want students to know and understand? How do we articulate these goals to them and to each other? And how do we assess their progress in achieving them, either as UMBC students or as life-long learners.

As Randy Bass at Georgetown has said, technology is just part of an overall teaching and learning "infrastructure" that includes . . .

"faculty support, faculty rewards . . . partnerships among academic technology, library, and professional development staff, along with faculty and administrators, and a generalized culture of reflective practice where activities like the scholarship of teaching are seen as integral parts of faculty professional lives. Without a strong teaching and learning infrastructure the payoff of technology, for *learning*, will be trivial."<sup>3</sup>

To build on the progress we've made to date, we need to more fully develop UMBC's teaching and learning "infrastructure." Chasing the latest technical toy or fad without evaluating them against our pedagogical and institutional goals will doom us to dabbling. Used thoughtfully, technology can be a catalyst for critical thinking and reflection about our teaching and learning goals. This is the transformation we should be pursuing.

---

<sup>3</sup> Randy Bass is Executive Director of the Center for New Designs in Learning and Scholarship (CNDLS) and Assistant Provost for Teaching and Learning Initiatives at Georgetown University. In 1999 he was recognized with the EDUCAUSE Medal for outstanding achievement in technology and undergraduate education. He is also a Senior Scholar with the Carnegie Foundation for the Advancement of Teaching. In 2002, he "spoke" with John Fritz via email for a graduate project in teaching, learning and technology at the University of Baltimore.

## RECOMMENDATION 1: STUDENT LEARNING OUTCOMES

*"Assess and promote TLT practices that improve student learning; facilitate faculty awareness, networking, mentoring and training of or in these effective practices, especially in STEM disciplines or where large, introductory "gateway" courses have a history of high failure or dropout rates."*

### Issues

Like higher education generally, UMBC is currently reflecting on how to efficiently and effectively assess student-learning outcomes, either in response to State budget incentives for net enrollment gains, or as a public accountability measure requested by the Middle States Accrediting Association. Similarly, UMBC needs to address the following TLT issues.

#### 1. Assessment

For all our TLT growth since 2000, there are still some things we don't know or can't establish very easily. For example:

- What is the relationship between student use of Blackboard and performance? While the trend needs further study, initial findings suggest that students who earn higher grades tend to use Blackboard more than students earning lower grades.<sup>4</sup>
- If so, what activities, and in which disciplines, is student learning most likely to improve? In particular, how does technology improve student learning in Science, Technology, Engineering and Math (STEM) disciplines, which UMBC has identified as strategic areas for improvement?
- Similarly, what is the best way to train faculty to use technology in STEM and other disciplines, especially in large, gateway courses that have a history of high failure or dropout rates? Specifically, if inadequate skills or preparation contribute to lack of student success, can technology be used to help students supplement what they don't bring to a course?
- Which courses are the most actively used by students and instructors? Why are they active? Should UMBC's limited TLT resources be prioritized to support these courses and departments, or should they bring others up to speed?
- Can student use of technology be used as an early warning performance indicator that can improve retention?<sup>5</sup>

#### 2. Resources

According to the most recent Educause Core Data Service (CDS) completed by 9 of UMBC's 10 institutional peers, UMBC's 66.5 FTE IT staff is by far the lowest staffing level, with our closest peer being Univ. of Wyoming (91 FTE IT staff); Clemson (186) is the highest followed by Delaware (175). In addition, UMBC has the highest percentage of student IT staff (28) amongst our peers and in the USM.<sup>6</sup>

---

<sup>4</sup> See "New myUMBC Tool Shows How Good Students Use Blackboard," 3/6/08 OIT News article at <http://www.umbc.edu/blackboard/reports>.

<sup>5</sup> For an interesting example, see "The Grand Challenge: Using Analytics to Predict Student Success," presented by John Campbell, Associate VP of Teaching and Learning Technologies at Purdue University, during the 2007 Educause Learning Initiative (ELI) annual meeting (<http://www.educause.edu/ir/library/pdf/ELI07158.pdf>).

<sup>6</sup> The 2005 CDS does not identify TLT support staff levels specifically, but the 13 FTE staff in Instructional Technology & New Media (who support classroom technology, online learning and new media applications), constitutes OIT's smallest unit. The CDS is available at <http://www.educause.edu/apps/coredata>, but to view survey results, you must create a free Educause userid and request authorization.

Most faculty are not willing to blindly adopt technology for technology's sake. They have to be shown how student learning improves to justify their own learning curve, and preferably by a colleague in the same institution or discipline. In addition to lack of time and money, staffing shortages make it difficult to dedicate strategic study of our own effective practices, let alone stay abreast of national trends.

## **Opportunities**

### **1. Study "Most Active" Blackboard Courses**

In Spring 2007, OIT published a new web site (<http://www.umbc.edu/blackboard/reports>) that, for the first time, identified AND ranked the Top 50 most active Blackboard courses and communities by a simple "average hits per user" methodology. While hits alone are no endorsement or indictment of course quality, these new reports show and rank activity across all Blackboard courses (e.g., undergraduate, graduate, by discipline) and by all users (e.g., faculty, students). As such, they allow faculty and students to network with one another about what works or doesn't in using technology in teaching and learning. Whether faculty will do so remains to be seen, but the use of a Course Management System (CMS) like Blackboard not only provides a way to facilitate instruction, it can also help to assess it by capturing user activity and reflecting this usage back to the community that has the motivation to study it further. This use of "data analytics" can also help shape evaluation of future TLT innovations by requiring tangible evidence of improvement in student attainment of course, program and institutional learning outcomes.

### **2. Faculty Incentives for Renewable TLT "Peer Mentoring" & Scholarship**

UMBC could create Bass' "culture of reflective practice" by doing the following:

- Create TLT "Fellows" in each UMBC College or School (\$5k each): Most faculty teach the way they were taught—and most weren't taught with technology. At the same time, most faculty learn best from other faculty. TLT fellows would be competitively chosen and compensated for a two-year tenure, to study and promote their own and a colleague's innovations that lead to improvement in student learning outcomes. Borrowing from the Summer & Winter "Alternate Delivery Program" (<http://www.umbc.edu/ssfaculty/adp>), the TLT "Fellows" would intentionally help recruit and support their replacement so ongoing support doesn't always fall on one person.
- Promote "best" (or at least effective) TLT practices: The long-running Teaching, Learning and Technology (TLT) Brown Bag Workshops (<http://www.umbc.edu/brownbag>) with five years of archived, taped presentations, continue to provide an excellent forum for awareness and collegial exchange.
- Provide a GA position to Study TLT practices: However TLT innovations emerge, someone or some group should be supported to help document student learning performance. By tying actual course and program grades to things like tool-specific usage in most active Blackboard courses, the institution might learn how good students use a CMS and (by extension) figure out if using a CMS (in optimal ways) helps create good students. At the very least, can we intervene with students whose use of the CMS falls below levels proven to be effective by studying their peer's performance?

### **3. Hire a STEM Instructional Technology Specialist**

UMBC is currently participating in a USM-sponsored initiative by the National Center for Academic Transformation, which is renown for redesigning, large enroll classes for effective and efficient delivery. However, we lack a an instructional designer or instructional technologist with experience or expertise supporting Science, Technology, Engineering and Math (STEM) disciplines, which are areas UMBC has identified as strategic growth initiatives.

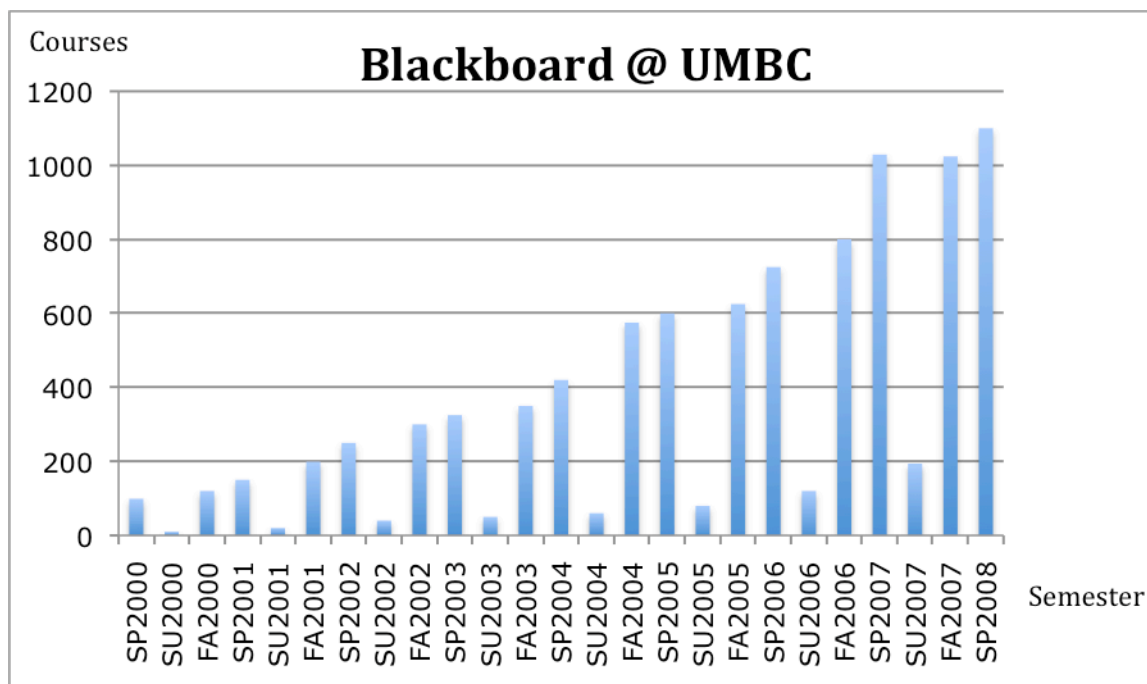


## RECOMMENDATION 2: TLT INFRASTRUCTURE & BLACKBOARD

*"Invest more fully in the Blackboard architecture and community of practice, to support and elevate existing faculty usage from simple user and document management to increased interactivity and online assessment that improves student engagement, retention and recruitment."*

While it would be a mistake to focus solely on Blackboard as an example of UMBC's strategic use of technology since 2000 (or in moving forward), it would also be a mistake to ignore its rapid growth and the related issues and opportunities it has created.

In the summer of 1999, UMBC explored the possibility of using Blackboard's course management system based on a recommendation by Professor Roy Rada who had used it at Pace University and was now heading a new UMBC online masters program in information systems. At the time, UMBC was a WebCT campus and supporting two CMS didn't make sense. However, after reference checks with other schools, a product demonstration during our TLT "Brown Bag" Workshop series, consultation with the Faculty Senate's Computer Policy Committee (CPC), and our own pilot installation in Spring of 2000, it became clear that Blackboard was easier for most UMBC faculty to use than WebCT. In summer 2001, UMBC stopped supporting its own WebCT server and a year later, took the server down completely.

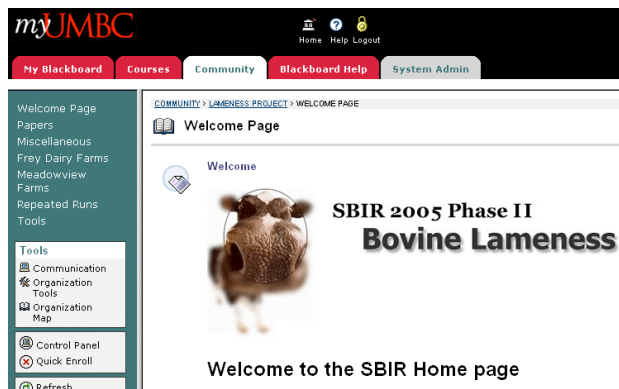


Ever since, the number of Blackboard courses has doubled almost every year to the point that UMBC now operates more than 1,100 distinct course sections a semester, 30 percent of which represent multiple sections that are grouped into a single Bb course site (to avoid duplication of content) but distinguished through Bb's "group" function (to communicate with each section separately and distinguish sections in the grade book).

In addition, more than 350 organizations or departments are using Blackboard as a collaborative tool, including all student, faculty and staff senates, several committees and at least two academic departments (History and Computer Science). Furthermore, at least 20

UMBC research organizations are using Blackboard for day-to-day collaboration with colleagues at other locations. Notable examples include the following:

- Mechanical Engineering Professor Uri Tasch's "Lameness Project" Bb community, that allows him to share data with dairy farmers and other researchers using his patented lameness detection bovine "treadmill"<sup>7</sup>;
- The Joint Center for Earth Systems Technology (JCET), which uses Bb for collecting travel expenses and sharing documents with researchers at NASA Goddard.



Even UMBC placement exams are conducted on Blackboard, which the Admissions office requested to help out-of-state students and families, who can make one less trip to UMBC before arriving for orientation. This process followed a year-long pilot with Admissions, and the English & Math Departments, to assure their buy-in from the start.

## Issues

To support such rapid, extensive Bb user growth, UMBC has encountered a number of issues:

### 1. Costs

In 2002, OIT agreed to support the online IS masters program, which had been paying \$50k per year to Eduprise, for third-party support and hosting of the program on a Blackboard server. Since then, IS has provided a graduate assistant to OIT's New Media unit for IS program support, but has also allowed the GA to be used for supporting overall Blackboard growth. OIT has maintained the Blackboard server and paid the annual license cost, which is now \$88k (\$50k for learning system and \$38k for the community system).

### 2. Enrollment

In Fall 2002, OIT started auto-enrolling all Bb courses, which (at that time) OIT created manually upon request by instructors. This saved faculty the tedious task of enrolling all their students one at a time or explaining to students how to enroll themselves—as long as departments communicated to the registrar who was the official instructor of record. If this conversation did not take place, the instructor could not be "auto-enrolled," and neither could his or her students, since the combination of courseID, facultyID and studentID must match in the UMBC Student Information System and Blackboard database. OIT's auto-enrollment "script" works, but there is wide variety in practice amongst departments in how instructor course assignments get captured in the official SIS.

### 3. Course Creation

In Fall 2004, OIT started auto-creating empty Bb course sites or "shells" for every course in the schedule of classes. By default, the Bb course was "unavailable" to students until the instructor of record turned it on. He or she could "copy" a previous Bb course into the new

<sup>7</sup> Tasch's use of Blackboard was presented at the BbWorld'06 user conference in San Diego, March 1, 2006.

one, make refinements and then turn on all or parts of the site as they saw fit. Not only did this save OIT the task of manually creating nearly 1,000 courses in the hectic weeks before and after a semester start (which cut into prime training season for faculty), it also gave a better indication of faculty adoption and use because they had to actively turn the course on so students could see it. But now we have massive numbers of empty, unused course shells that need to be deleted to improve the production environment.

#### **4. Performance & Storage**

In Fall 2005, with more than 10,000 active AND empty course shells on the production server since 2000, the system was growing sluggish and took too long to upgrade regularly. When it became clear Bb couldn't be down for 1-2 days during the fall, spring and summer semesters, OIT decided to upgrade in January, when only a handful of courses used Blackboard (winter Bb courses were run on a separate server). OIT also worked with the Faculty Senate Computer Policy Committee to develop a Blackboard "Archiving" policy so no more than three years worth of courses remained on the production server at any time (still to be implemented). In addition, students in the online programs have complained about excessive downtime, which dramatically impacts their satisfaction and performance. We need to move forward with archiving and/or removing old courses to improve performance.

- **Integration**—In Fall 2006, it became clear some users were equating Blackboard enrollment with official university registration. The Office of Undergraduate Education reported some students had mistakenly thought enrolling in a Bb course constituted official registration through *myUMBC*. Incredibly, so did their instructors who graded the students' work in Blackboard but never confirmed the students' official registration against their *myUMBC* course roster. This resulted in difficult conversations at the end of the semester. OIT removed the "self enroll" function from auto-created shells, and refined its "auto-enrollment" script so students who officially dropped a course would not see a corresponding Bb course. But this was discontinued in early Spring 2007 when it became apparent some instructors were still manually enrolling students upon request. In addition, some departments failed to communicate changes in the course title, type (e.g., cross-listing) or instructor assignment to Academic Services, which in turn broke the auto-course creation and auto-enrollment scripts that could support a totally automated and "mirrored" *myUMBC* registration process in Blackboard.

#### **5. Staffing**

With the exception of a graduate assistant funded by Information Systems starting in Fall 2003, OIT staff support for Blackboard has not changed since 2000.<sup>8</sup> OIT has three (3) FTE positions for Blackboard:

- Director of Instructional Technology & New Media (0.5 FTE);
- Instructional Designer (1.0 FTE);
- Windows Server Administrator (1.0 FTE); and
- Graduate Assistant (0.5 FTE).

#### **6. Innovation**

While OIT has made efficient and effective use of technical solutions to augment a relatively low staffing level to support UMBC's Blackboard growth, some have questioned whether it has come at the cost of supporting innovation in other areas.

---

<sup>8</sup> In 2004, more than 20 Blackboard client institutions responded to a survey on the independent Association of Blackboard Users listserve about FTE staffing support, which showed an average of .25 FTE for every 1,000 students supported.

- In 2004, a handful of faculty in Biology and English wanted to use “wikis” (or collaborative web sites anyone can edit) instead of using Blackboard. While OIT co-sponsored a Spring 2005 lunch demo that was well attended, the use of course Wikis has not expanded much beyond the committed core of faculty who love them. In part, this is because wikis are still evolving as a TLT tool (the faculty group has changed wiki software at least twice). And given how many instructors were already using Bb, OIT had limited staff to support and promote this project.
- Similarly, in Fall 2006, Chemistry faculty who were experimenting with group learning to improve student pass rates and retention in CHEM101 and CHEM102, have struggled to make Blackboard function as they would have liked for their “recitation” section. In part, this was due to problems getting their original lab networking software configured, which led to an 11<sup>th</sup> hour decision to try Blackboard for in-class collaboration and document sharing the faculty believed was vital for effective small group learning. Again, OIT had limited time and staff to commit to the project.

In short, the strength and weakness of Blackboard is its ease of use. Because so many faculty have found it easy to use, many have done so—in droves. Also, students have played an important role in this growth, as many faculty request Bb training or support, saying more of their students are asking for a Bb site. This in turn has shaped (forced?) how OIT has aligned resources to support it, including relying on innovative technical solutions to augment low support staffing, and encouraging faculty to make a strong case for departing from the Blackboard support model. Finally, recent news following Blackboard’s acquisition of WebCT and legal fight with Desire2Learn over patent infringement have raised concerns that a virtual Blackboard monopoly could stifle competition and innovation.

## **Opportunities**

Infrastructure—Blackboard provides a number of services and products that would stabilize and improve the eLearning experience for UMBC students, faculty and staff. For example:

### **1. Hosting**

Blackboard could host up to 15,500 users for \$102k (including a one-time \$20k setup fee). An additional 8,500 users “block” costs \$34k. Annual cost after year 1 would be \$116k (for 24,000 users), which is about what OIT currently pays in staffing, hardware and Windows/Oracle software combined. This would not include the annual Blackboard learning system and community portal license of \$88k. It is not known if the “setup fee” would cover the authentication and integration UMBC currently enjoys, but external hosting benefits would include:

- a. 99.7 percent guaranteed application availability
- b. 24 x 7 x 365 customer support
- c. Daily data backups
- d. Secure, off-site facility
- e. Intrusion detection
- f. Fully redundant and conditioned power

### **2. Content System**

By copying more than 1,000 courses each semester, not only do we needlessly use up file storage that can sacrifice performance, we also make it difficult for instructors, departments or programs to “share content” because there is no centrally accessible repository to view it.

Blackboard's Content System would allow us to publish content once, but link to and share it indefinitely. It also includes electronic portfolio and library reserve modules. Annual license cost is \$50k if we host it ourselves; add \$35,700 if Blackboard hosts it (including a one-time \$15k setup fee). Annual license and hosting cost after year 1 would be approximately \$70k.

### **3. Outcomes System**

To help with assessment of course, program and institutional student learning outcomes, Blackboard developed this product to work in conjunction with the Bb learning system. UMBC faculty and staff (as well as national and discipline-specific accrediting bodies) participated in early requirements gathering and prototyping as part of a product advisory board. Future versions of this product will allow student submitted work to serve as evidence of successful attainment of learning objects defined in the outcomes system (\$40k, need to find additional price if hosted).

Collaboration—There are a number of ways UMBC has benefited from and contributed to the larger community of Blackboard clients, users and third-party vendors.

### **4. Maryland Blackboard Users Group (MDBUG) & BbWorld Users Conference**

UMBC has been an active member of the MDBUG, first hosting a 10/6/05 "Md. Bb Day @ UMBC" attended by more than 60 participants from 30 institutions. Last spring, UMBC also formed an email listserv (<https://lists.umbc.edu/lists/info/mdbug>), in part to support the needs of public and private, K-16 Blackboard clients, many of which are represented on the Maryland Enterprise Education Consortium (MEEC), which has recently discussed ways to share support costs, if not actual server hosting.<sup>9</sup> In addition, UMBC hosted a first-ever MDBUG "conference" on 10/2/07 at the UMBC Technology Center. Also, since 2001, UMBC has had at least one faculty or staff member present at Blackboard's world user conferences (two conferences have taken place in Baltimore, 2003 and 2005). Whether it should or not, UMBC's local leadership has improved our support from Blackboard, and put us in a position to learn effective practices from other institutions. Ironically, because we are so short-staffed, we need to continue to stay involved in local and national Blackboard communities, both to learn and influence the most effective and efficient ways to support the application.

### **5. Building Blocks**

In 2003, to support customization of its core products, Blackboard introduced the "Building Blocks" Application Programming Interface (API), which provides a standardized method for clients or 3rd-party vendors to write specific applications. UMBC uses a form of the "Blocks" API to support single sign-on so all users can login with their *myUMBC* userid and password. We also rely on several free and commercial "blocks" that have become useful and would have been difficult for OIT to create given other priorities. Currently used Blocks include:

- g. Who's Online: a system administrator utility that shows who is currently using Blackboard, and in the past 5, 30 and 60 minute intervals up to the most recent three hours (free, developed by Seneca College)
- h. Advanced Group Management (free, developed by Florida State Univ.): a more usable alternative to Bb's delivered method of creating and managing user groups inside a Bb course or community.

---

<sup>9</sup> At a recent MEEC meeting, several community colleges including Prince Georges and Carroll reported good experiences having Blackboard host their servers. Though a proposal is still developing, MEEC representatives have also expressed support for a proposal to share support calls through a 24/7, third-party vendor called Presidium Learning ([www.presidiumlearning.com](http://www.presidiumlearning.com)).

- i. Turnitin: a plagiarism detection service that compares any electronic file in the Turnitin database, including files students turn in with the Bb "assignment" tool (\$5k, developed by Turnitin.com, paid for by the Faculty Development Center)
- j. Journals and Teams: a blog and wiki tool, respectively, for use in any course or community (\$8,500, developed by [www.learningobjects.com](http://www.learningobjects.com)).
- k. Voice Tools & Live Classroom: Streaming audio authoring tools that allow users to talk and listen in synchronous (real-time) and asynchronous mode. Primarily used by Modern Language & Literature (MLL) for modeling and hearing student language pronunciations online, Voice Tools (VT) and Live Classroom (LC) are also used by the online Masters program in Instructional System Design and the English Language Center (\$12k, developed by Wimba.com).

Whether UMBC invests further in the Blackboard architecture (or the communities of practice that use and support it), our users will benefit by improved functionality and understanding of how to make the most of the product.

### **RECOMMENDATION 3: ONLINE & HYBRID LEARNING STRATEGY**

*"Coordinate development, implementation and support of all proposed online degree programs. Collaborative partnerships could include academic departments (for subject matter expertise), the Faculty Development Center and Office of Information Technology (for instructional design and technical support) and Continuing and Professional Studies (to administer and market the online program needs and experiences of students)."*

#### **Issues**

Currently, UMBC offers three online master's degree programs established only five years apart: Emergency Health Services (1998), Information Systems (2001), and Instructional Systems Development/Education (2003). Unfortunately, the faculty and staff who support them have little interaction with one another. This is not unusual in a traditional (F2F) academic environment, but in a still maturing online one, UMBC's silo approach weakens existing and proposed programs, by not sharing lessons learned, and burdening departments to create a "virtual UMBC" from scratch. Specific issues to address include:

#### **1. Credibility**

With a high percentage of courses taught by adjunct instructors, Blackboard and other technologies are helping these faculty and their students stay connected. But if more full-time faculty don't help develop or teach online courses, we risk losing their influence on the online version of our curriculum. In the past, some faculty have raised questions about "contact hour" equivalencies between online and F2F courses as a measure of quality. However, the Code of Maryland that initially established the "contact hour" as a means to calculate academic credit, now provides a detailed description of "good practices" online learning should adopt to receive equivalent credit.<sup>10</sup>

#### **2. Course & Faculty Development**

In a traditional F2F environment, faculty develop their own courses that complement an agreed upon curriculum. This works, because most faculty teach the way they were taught. But most were not taught with technology, and online-only learning forces the instructor to think creatively about a delivery method he or she didn't experience as a student. Combined with the demands of mastering new technology (while maintaining one's subject matter expertise), and it is no wonder most new online instructors initially repackage existing F2F content and activities into a new skin, rather than fully explore opportunities and limitations of online environments.

#### **3. Administration**

How does an institution built for F2F interactions recruit, admit, register, support and bill online-only students? Not very well. As a result, individual departments, sometimes with the assistance of CPS, have set up processes that parallel what UMBC does with F2F students. Just look at the websites for all three online programs and study how much administrative and procedural content dominates their sites (and is duplicated across all three). For example, there are three separate schedule of classes sites for online programs. All told, UMBC probably offers less than 50 online-only courses through the online master's programs. The problem is nobody really knows for sure. Until very recently, there was no standardized way of referring to instructional delivery method in the UMBC Schedule of Classes, which now displays "Web" as the room assignment. But try to find these courses

---

<sup>10</sup> See Code of Maryland (COMAR) 13B.02.02.16 "Graduation Requirements," especially section N (2) "Standards of Good Practice in Distance Education" (<http://www.dsd.state.md.us/comar/13b/13b.02.02.16.htm>).

amongst all of the others? No wonder, department and online program sites felt compelled to create them, as well as redundant instructions for getting a computer account, registering for classes, and so on.

## **Opportunities**

### **1. Quality Matters**

To improve consistency across disciplines and guide faculty with a proven method for evaluating quality online course design, UMBC faculty should agree to use the QualityMatters rubric or "check list of best practices in online learning" (<http://www.qualitymatters.org>). QM is a voluntary, standards-based method of evaluating online course design, NOT instructor performance or course delivery. From 2003 to 2006, QM was funded by a \$500,000 grant from the Fund for Improvement of Post Secondary Education (FIPSE). It has won numerous awards for articulating a simple, but effective standard by which online learning design can be evaluated. Currently, QM is operating on an individual and institutional "subscription" model. This year, OIT joined QualityMatters so now all faculty can use its highly regarded rubric and request an independent peer review of the course design. QM also trains faculty to serve as QM peer reviewers who can earn \$150 for participating in a three-member team evaluation of a course.

### **2. Hybrid Learning**

UMBC should institutionalize the Alternate Delivery Program ([www.umbc.edu/ssfaculty/adp](http://www.umbc.edu/ssfaculty/adp)), which provides modest, one-time course development stipends to faculty to redesign their existing courses for online and hybrid (part online, part face-to-face) delivery in summer and winter sessions. UMBC may never become a large provider of online courses, but it may be that the hybrid undergraduate courses will allow us to blend the best of both online and face-to-face formats. At the same time, hybrid teaching and learning could prepare our faculty and students for online academic contexts they are more likely to face in graduate education. Regardless of its benefits, a critical mass of high quality online or hybrid courses probably won't develop at UMBC without faculty incentives to experiment and refine alternate course delivery models.<sup>11</sup>

### **3. Centralize Administration of New Online or Hybrid Programs**

Just as the FDC and OIT are working together to provide support for the faculty and course development approaches above, the university should take a holistic approach to the administration and marketing of online student needs and experiences for proposed online programs. For example, Continuing and Professional Studies should be supported to:

- Pay for UMBC online course development: CPS should hire Instructional System Design graduate assistants to help faculty develop courses for online delivery.<sup>12</sup> If the faculty don't want or need the GA assistance, they should be given course development stipends and/or course release time to do so according to agreed upon (QM?) standards.
- Partner with other institutions to supplement and market online programs: CPS should pursue a partnership with UMUC to support inter-institutional registration that supplements each institution's online program offerings. If we'll accept and transfer their credits, students should be able to navigate different course management systems.

<sup>11</sup> Trinkle's encourages the use of modest faculty incentives in his article, "The 361° Model for Transforming Teaching and Learning with Technology." UMBC's 2003 Faculty Senate Ad Hoc Committee report on Teaching, Learning and Technology made a similar recommendation.

<sup>12</sup> UMUC has an army of full time instructional designers to develop online courses taught by part time instructors. By contrast (because our online learning missions are different), UMBC should hire part-time instructional designers to work with full-time faculty to develop online courses they would teach.



- Develop a “one-stop shop” for online students: CPS should (with OIT’s support) create or improve a *myUMBC* “online student” role that provides clear, consistent “self-service” functions for advising, registration and billing across all online programs.

#### **4. Impact of Online Video & Digital Storytelling on Distance Education**

While it may not seem like it, online video can be a form of hybrid learning that could change distance education’s traditional text-based environment to a more interactive visual one. More faculty are not only publishing audio & screen casting video lectures<sup>13</sup>, but some are also exploring visual assignments for students that often debut or are viewed online, and that complement (or even replace) traditional written assignments. Currently, OIT is supporting a pilot use of video assignments in three Media and Communications Studies (MCS) courses, which draws on the experience of OIT’s New Media Studio (NMS).

Since 2004, the NMS has been adapting the practices of the Center for Digital Storytelling (CDS) in Berkeley, California for use in intercultural communications and oral history. Bringing together writing, photography and audio, the digital storytelling process facilitates the telling of personal and reflective stories in the form of short digital movies. NMS sponsors annual workshops at UMBC conducted by CDS and NMS staff, in which faculty gain insight into the use of digital storytelling as a pedagogical and research tool and as a means of preserving personal narratives in a digital form. In 2006, the Studio began an ongoing project bringing together UMBC students and residents of the nearby Erickson retirement community. Thirty stories produced are available at <http://www.umbc.edu/stories>) and are broadcast by Retirement Living TV. The project was recognized with a 2007 Telly Award.

UMBC needs to stay on the forefront of exploring new technologies that may help solve current pedagogical problems or opportunities associated with online & hybrid learning.

#### **5. Shining Light on Best Practices**

In terms of faculty development, our strength is a core of pioneers and early adopters who have taken it upon themselves to break new ground and share with colleagues. To the extent possible, the university tries to build community by shining light on faculty through our TLT Brown Bag workshops, which have been well attended since the late 1990s (for a video archive of past workshops, see <http://www.umbc.edu/brownbag>). In 2001, UMBC's newly created Faculty Development Center also became a brownbag co-sponsor, and helped enrich the series by focusing on pedagogy and course redesign issues.

#### **Cautionary Notes**

##### **1. Support of Current Online Programs**

If and how the university decides to move forward with more online programs, the current ones should be treated carefully. In many ways, these pioneers paved a way (and opportunity) for the campus to consider and refine how to move forward. While departments and faculty should own the development and delivery of their curricula (whether F2F, online or both), centralized marketing and administrative support of current online programs needs to be well thought out so as not to diminish the effectiveness they may have achieved while waiting for the rest of the university to catch up. In fact, until the university can demonstrate more efficient and effective support of future online programs, it may be wise to “grandfather” or “exempt” current ones from a centralized approach.

---

<sup>13</sup> See <http://www.umbc.edu/oit/hybrid/training/lectures>

## **2. Faculty Size & Composition for Online Learning**

If there is a mandate to provide more online courses to improve student access, or eliminate classroom shortages, this could hurt UMBC if we don't address an underlying problem: shortage of FT instructors. Based on UMBC's own Self Study report for the 2006 Middle States Accreditation visit, UMBC uses far more part time instructors than our peers (26:1 vs. 20:1). Most experts agree 20-25 students is the upper limit of students one can effectively teach in an online-only course. A hybrid course meeting part face-to-face and part online might increase that number, depending on the course content, instructor skill and student self-discipline. But one should not assume teaching online courses is necessarily more efficient for faculty.

If anything, most people agree that teaching online takes more (not less) time, at least in the initial development and first offerings. As such, how do we offer more courses with the current instructional faculty, which is already using more PT instructors than our mission calls for? While online education may improve student access to courses, pushing forward without more FT faculty (and instructional technology support) could dilute rather than foster the richness and reach we desire.

## RECOMMENDATION 4: LEARNING SPACE DESIGN

*"Develop a strategic plan for design of formal, informal and (where appropriate) virtual learning spaces. A good first step is to complete the three-year plan to equip all registrar-controlled classrooms with fixed presentation technology by FY11. In addition, we should use the new Fine Arts and Humanities building to challenge current and future assumptions about what it means to learn not just anytime, but also anywhere."*

In Academic Year 2006-07, OIT worked with Academic Services and Facilities management to develop a three-year plan to equip all registrar-controlled classrooms with fixed presentation technology.<sup>14</sup> The plan was endorsed by the Provost's Classroom Committee in December 2006, and in Summer 2007, OIT implemented phase 1 (equipping 13 classrooms in Sondheim), which Provost Art Johnson funded. In addition, as part of the Lecture Hall IV renovation, all of the presentation technology was upgraded and permanently installed.

Beyond simply increasing supply to meet demand, development of the Classroom Technology Plan helped raise strategic awareness of our long- and short-term needs, and increased collaboration between the Classroom Committee, Academic Services, Facilities Management and OIT. As the campus now goes through the planning process for the new Performing Arts and Humanities building (tentatively scheduled for groundbreaking in 2010), we have an opportunity to reflect on and coordinate how the campus uses formal and informal learning spaces. To do so, we should consider the following issues and opportunities.

### Issues

#### **1. Collective Understanding About Learning Space Design**

While the Classroom Technology Plan improved collaboration, the campus needs a more holistic view of current and potential learning spaces to meet students' expectation of flexibility and instant access to information. A new trend in higher education is focused on how informal learning spaces can support individual and group learning outside the traditional classroom. UMBC needs to become more conversant (and coordinated) in how to pursue and integrate informal learning space design into our instructional space budgeting, staffing and management. A good interdisciplinary approach is *Learning Spaces*, the e-Book published by Educause, which provides case studies, trend analyses and guidelines about how to rethink traditional uses of physical space (e.g., flexible, configurable furnishings, group presentation support, and integrated technology solutions that promote mobility and collaboration).<sup>15</sup>

#### **2. Inefficient Classroom Scheduling**

Currently, it is very challenging to meet all but maximum student seating capacity needs into the classroom scheduling process. A number of factors and assumptions surround this problem, but until it is solved (possibly by the new PeopleSoft Student Administration software), we will continue to pay with missed opportunities and inefficiency. For example, the Classroom Technology staff feels that we could meet ALL of our current instructional technology needs if faculty who want to use it could be assigned to equipped classrooms. The registrar's office expends considerable effort to do so manually, but we do not have a systematic way to do so before rooms are assigned. As a result, faculty who do not need or want fixed technology rooms are assigned to them, while those who do are not—and thus request labor intensive (and expensive) mobile technology cart deliveries on a recurring

<sup>14</sup> [http://www.umbc.edu/provost/Ad\\_Hoc\\_Committees/CCTechnologyStrategicPlan.pdf](http://www.umbc.edu/provost/Ad_Hoc_Committees/CCTechnologyStrategicPlan.pdf)

<sup>15</sup> <http://www.educause.edu/LearningSpaces>

basis. As instructors (and students) define more desirable room attributes, this will put demands on the scheduling process to keep up.

### **3. Department vs. University-controlled Instructional Space Limits Availability**

Compounding the scheduling problem (or perhaps because of it) is a self-imposed constraint because some departments have historical control of space not available to be scheduled by the Registrar's Office. How and why this pattern developed is unclear, but Facilities Management staff acknowledges that if all current instructional space was available for general purpose scheduling, UMBC would not have a classroom shortage, as we do now.<sup>16</sup> Similarly, if the Registrar scheduled all space, departments would more likely meet scheduling guidelines passed by the Classroom Committee in 2004. Perhaps if departments could be given "preference" (but not guarantees) to spaces they have controlled in the past, they could also be relieved of the burden to install and maintain their own instructional technology, which is sometimes at odds with OIT's current standards and processes.

## **Opportunities**

### **1. Review and Revise Current Classroom & Lecture Hall Design Standards**

In addition to providing much needed space and functionality, the new Performing Arts and Humanities facility is raising questions about the currency of UMBC's classroom and lecture hall design standards, which were last published in 2000.<sup>17</sup> Certainly, the technology described in the 2000 standards is out of date. For example, video display (which didn't need as big a screen or high resolution projection) was favored over data display, leading to projection problems in some lecture halls. But the standards also describe space and seating commitments to enhance the end-user experience that have not always been followed. In cooperation with the PAHF planning committee, the Provost's Classroom Committee is reviewing and will recommend, where appropriate, revisions to the UMBC Classroom and Lecture Hall design standards.

### **2. Library's Student Learning Commons**

A recent trend at several colleges and universities has been the emergence of facilities designed to enhance informal, individual and group learning outside the traditional classroom.<sup>18</sup> Often referred to as an "Information Commons," these spaces provide flexible, user-defined and controlled furnishings, natural light, group presentation practice areas, ubiquitous technology and (most importantly) staff skilled in providing information literacy and technical support. Not surprisingly, many Information Commons are located in libraries, which are also redefining their missions and environments in a digital culture where users expect immediate access to information. In 2006, the Albin O. Kuhn Library and Gallery, conducted extensive student and faculty focus group interviews and surveys that revealed similar interest in services an Information Commons might provide.<sup>19</sup> While no formal plans have been developed, the Library staff has been meeting with colleagues in OIT and the Learning Resources Center (LRC) to brainstorm what might be possible, including a small proof of concept "demonstration space" in FY09.

---

<sup>16</sup> 10/9/07 Classroom Committee minutes (available in corresponding Blackboard site).

<sup>17</sup> <http://www.umbc.edu/provost/Classroom/classroom.html>

<sup>18</sup> See "Linking the Information Commons to Learning," chapter 7, *Learning Spaces* (an Educause E-Book (2005), <http://www.educause.edu/learningspaces>).

<sup>19</sup> <http://aok.lib.umbc.edu/slc/>

### **3. Immersive, Virtual Learning Environments**

Admittedly, it is difficult to predict how technology may be used for instruction in the future, but one trend many are watching is the growing phenomenon of immersive and often virtual learning environments that is online gaming. Outside the traditional time and space of academia, these are no longer fringe technical ghettos for anti-social teenage boys. The mainstream of society is now embracing World of Warcraft, Second Life and other virtual worlds, precisely because they are immersive, engaging and easier to access. Teaching and learning conferences are now exploring how to adapt or adopt these immersive worlds.<sup>20</sup> Can life-long learning be a user-defined quest that informs and entertains? Will education become a necessary means to an end (employment), but not an absorbing social, cultural and enlightening pursuit?

### **4. Audience Response Systems (aka "Clickers")**

UMBC now uses the Classroom Performance System (CPS) or "Clickers" by eInstruction.com to support instant student feedback to questions posed by faculty in PowerPoint or impromptu question "slides." Results are anonymous but can be imported into a corresponding Blackboard class so the instructor knows what students do (or don't) understand before moving on to other concepts. While clickers may not be about buildings, they add a dimension of interactivity to physical space that is worth considering. Now, large classes can be smaller, as instructors learn what students know while teaching, and student groups can be asked to apply concepts by agreeing to a common answer posed by a clicker question. Clickers are now used by more than 4,000 students in more than 30 courses this semester. For more information, including online demonstrations and setup instructions, visit [www.umbc.edu/clickers](http://www.umbc.edu/clickers).

---

<sup>20</sup> The Educause Learning Initiative held a focus session on immersive learning at NC State in Spring 2007 (<https://www.educause.edu/eli072>), and the New Media Consortium, which publishes the annual "Horizon Report" on technologies that will be adopted over the next one to five years (<http://www.nmc.org/horizon>), now maintains its own "Orientation Island" in Second Life (<http://sl.nmc.org/join>).

## RECOMMENDATION 5: ASSESSMENT OF TLT STRATEGIC PLAN

*"Establish an interdepartmental committee for Teaching, Learning and Technology charged with defining, implementing, evaluating and reporting institutional progress on recommendations 1 through 4. In addition to faculty representatives from all colleges and schools, the TLT committee should include support staff from the Library, OIT, FDC, Learning Resources Center (LRC) and CPS."*

As this plan starts with advice from Dennis Trinkle on how to pursue teaching, learning and technology, it also closes with his perspective on the challenges. In the May 21, 2007, Educause Live Webcast, "Top Ten Challenges for Academic Technology,"<sup>21</sup> Trinkle and John Campbell, associate vice president for Teaching and Learning Technologies at Purdue University, explored why teaching and learning has fallen off the annual list of important issues for Chief Information Officers in recent years, as measured by The Campus Computing Project.<sup>22</sup>

In short, the burden of funding, developing, implementing and maintaining robust AND secure campus-wide networks and information systems has swamped most IT divisions. In a post 9/11 world, the need for security and privacy of information has created a "management by crisis" environment few IT organizations can rise above.

Only by consciously carving out time and effort to educate campus leaders about the needs and potential of academic technology, perhaps aided by an external advisory group, can IT organizations support teaching and learning, which Trinkle says "most would consider central to the university's core mission."

### Issues

#### **1. There is no central understanding or assessment of TLT**

To be sure, simply creating a TLT committee wouldn't change the current landscape Trinkle describes. But if central IT is challenged to "stay focused" on teaching and learning, what is happening to the many departments and units that manage their own technology? If charged and supported to implement AND assess the campus' TLT agenda, a committee might make it easier to collaborate and report on efforts that help create the "distinctive" Honors university experience we want for our students.

At a minimum, members of the committee might be asked to consult with departments about their student technology fluency goals and support strategies departments are required to identify in their academic program review every seven years.<sup>23</sup> Currently, these plans are informational for the APR process. But are departments sharing their plans with each other? Like faculty who may consult each other about effective teaching practices with Blackboard, or clickers, how are departments communicating what works (or doesn't) in improving student technology fluency? By concentrating (and sharing) the efforts of those who are perhaps struggling on their own in related endeavors, it might be possible to keep TLT higher on the institutional radar. Otherwise, we risk not knowing what we don't know, and minimizing the benefit or harm in pursuing current initiatives.

<sup>21</sup> <http://www.educause.edu/LIVE0710>

<sup>22</sup> <http://www.campuscomputing.net/>

<sup>23</sup> [http://www.umbc.edu/provost/AcademicPolicies/APR\\_Guidelines\\_September\\_2006.pdf](http://www.umbc.edu/provost/AcademicPolicies/APR_Guidelines_September_2006.pdf) (page 10).

## Opportunities

### **1. Collaboration Between FDC and OIT**

In recent years, the Faculty Development Center and OIT have collaborated on a number of projects, including the Alternate Delivery Program to support faculty redesigning existing courses for hybrid delivery ([www.umbc.edu/oit/hybrid](http://www.umbc.edu/oit/hybrid)), part-time faculty orientations, and of course the Teaching, Learning and Technology (TLT) Brown Bag workshops ([www.umbc.edu/brownbag](http://www.umbc.edu/brownbag)). Last semester, the FDC moved into OIT's Instructional Technology unit located in ECS 101, not to merge, but simply share space and resources to continue and deepen the collaboration. For similar reasons, the University of North Carolina at Charlotte combined its faculty development and instructional technology units. The pros outweigh the cons, but the authors report this "bridging" experiment was not easy initially, mainly because the cultures of each organization were so different from each other.<sup>24</sup>

Teaching, learning and technology requires a continuum of understanding between the instructor's goals, course design, delivery, student learning and retention. This is a broad, and complex alignment process that may be no less challenging than supporting networks, servers and information security. But like central IT, pursuing TLT effectively and efficiently may require a specific mandate and resources to do so.

### **2. Library's Student Learning Commons**

If there is one weakness the OIT and FDC collaboration faces, it is that neither group has a mission or resources to fully understand student learning outcomes. For the most part, the FDC's mission is all about faculty, while OIT's strained instructional technology resources preclude deepening support for many other constituents besides faculty. This is why the Library's proposed Student Learning Commons could be an attractive focal point for the TLT continuum described above. By collaborating more fully with staff from the Learning Resources Center (and maybe even Student Affairs), and working in a group that is focused on the experience of learners, it might be possible to give the campus a "one-stop-shop" we can turn to for understanding student learning and faculty development.

### **3. Learning From Our Past**

As stated on the first page of this plan, in 2001 an ad hoc workgroup of the Faculty Senate Computer Policy Committee (CPC) was asked to study why the old Technology Enhanced Learning (TEL) committee had disbanded. Their analysis led to these recommendations:

- There needs to be a faculty-led initiative to evaluate the effectiveness of our current efforts, and develop a strategic plan for teaching, learning and technology at UMBC;
- We should not reconvene the TEL committee unless it has some formal charge and reporting structure in UMBC's shared governance;
- UMBC should work within existing committees to address the teaching, learning and technology issues we identified last spring (e.g., rewards and incentives, release time, lack of time and support, etc.);
- The Faculty Development Center is likely the best choice for coordinating and supporting these issues, but is not adequately funded to do so;

---

<sup>24</sup> See "Bridging the Divide: Combining Faculty Centers and Instructional Technology Support" (<http://www.educause.edu/LibraryDetailPage/666?ID=ERB0509>)

- UMBC needs an information network or exchange to build awareness of best practices and create synergy among faculty, administration, support staff and students, perhaps something like the TLT roundtable.

Hopefully, this plan can be a bridge to the transformation that current and past CPC members, and other faculty have desired, and believe is possible.



## **APPENDIX A: TLT PLAN FACULTY ADVISORY GROUP NOTES (2/9/07)**

Participants and primary issue/concern/suggestion:

- Jessame Fergusson (Library) – Liked the 360 degree article, especially the recommendation to invest more in people than technology.
- Karin Readell (Geography) – Interested in where UMBC plans to go with Blackboard.
- Kriste Lindenmeyer (History) – How to keep up with the changing technology. Suggest that APB be made aware of the investment needed to support Bb and other initiatives.
- Greg Williams (Education & ISD Online Masters) – Online support and understanding what it takes to teach online.
- Linda Oliva (Education) – It's important to be an online learner before trying to be an online instructor.
- Beth Jones (Continuing and Professional Studies) – Interested observer of faculty development. How do we leverage initiatives like the Alternate Delivery Program.
- Jack Prostko (Faculty Development Center) – Faculty development in online learning requires some form of compensation or stipend.
- Bill Lacourse (Chemistry) – Concerned with how standardization of any technology could lead to lack of innovation in other areas. OIT seems too stretched to support other models.
- Lili Cui (Physics) – Interested in clickers in the classroom and making Blackboard easier to use.
- Bob Armstrong (OIT) – Interested in increasing faculty sophistication with Blackboard, and supporting the hybrid program.
- Steve Anderson (OIT) – Classroom technology needs to be supported by the institution.
- John Fritz (OIT) – Surprised by how much we talked about Blackboard.

## **APPENDIX B: FACULTY SENATE COMPUTER POLICY COMMITTEE**

### **Ad Hoc Committee on TLT Notes (11/9/01)**

Present: John Fritz, Jim McKusick, Jack Prostko, Linda Oliva and Andy Miller

Following an open discussion about many issues, the group basically agreed to the following recommendations:

- 1) There needs to be a faculty-led initiative to evaluate the effectiveness of our current efforts, and develop a strategic plan for teaching, learning and technology at UMBC;
- 2) We should not reconvene the TEL committee unless it has some formal charge and reporting structure in UMBC's shared governance;
- 3) UMBC should work within existing committees to address the teaching, learning and technology issues we identified last spring (e.g., rewards and incentives, release time, lack of time and support, etc.);
- 4) The Faculty Development Center is likely the best choice for coordinating and supporting these issues, but is not adequately funded to do so;
- 5) UMBC needs an information network or exchange to build awareness of best practices and create synergy among faculty, administration, support staff and students, perhaps something like the TLT roundtable.

Comments:

While the faculty liked the SDSU policy on distance education, and suggested we share it with the graduate program council and faculty affairs committee for guidance of UMBC's own DE efforts, they didn't feel DE was the primary focus of most faculty, and so didn't think we needed to push for a similar policy. Most faculty are focused on technology enhanced learning or hybrid courses. However, we all agreed that the SDSU policy's review of curriculum to insure "substantial, personal, and timely interactions between faculty and students and among students" was a benchmark we should adopt, whether for Online or Hybrid courses.

## **APPENDIX C: CPC AD HOC COMMITTEE ON TLT NOTES (5/18/01)**

**Present: Zane Berge, Stephen Bradley, Linda Oliva and John Fritz**

### **SUMMARY**

1. Background on TEL Committee
2. Exploration of Current TEL issues at UMBC
3. Resources: SDSU Faculty Senate Policy, David Noble's "Digital Diploma Mills" essay
4. Next Steps: Online Discussion (July 9-12)

### **DETAILS**

#### **1. Background on TEL Committee**

Zane Berge provided a useful summary of the TEL Committee's origins and possible reasons for recent inactivity. Originally convened in 1996 as the "distance education" committee by Associate Provost Tony Moreira, the group changed its name because of negative connotations associated with the DE term both at UMBC and in higher education generally. Early on, the committee made a conscious decision to adopt a "case study" approach to studying current TEL issues or opportunities, rather than focus on the development or revision of campus policies governing TEL initiatives. Given the campus' early stage of development with TEL, this seemed like the best approach and helped lead to the establishment of three online academic programs in Emergency Health Services, Training Systems and Information Systems.

The TEL Committee's case-study approach certainly helped educate its members about the pros and cons of program development, but the wider campus community seemed not to benefit from the lessons they learned. By most accounts, this is because the TEL committee didn't really have a home in UMBC's shared governance structure. It advised the administration, faculty senate, and even specific departments, but did not specifically report to any administration or faculty body. With no new online programs in development and no new agenda items presented to him by members, Berge didn't want to call a meeting that had no purpose.

#### **2. Exploration of Issues at UMBC**

Despite the TEL committee's recent inactivity, everyone said there are a number of issues that need to be addressed:

##### **Reward & Recognition**

By far, this is the biggest concern among faculty. In the current approach to tenure, there is little or no value for innovations in teaching using technology. Yet, serious work in TEL takes time and expertise few faculty have, especially those seeking tenure.

##### **Strategic Planning**

The university needs to decide what its niche will be in the technology enhanced learning landscape. While the TEL committee focused on distance education, particularly as a means for building workforce development, a growing number of professors are seeing the benefits of web-enhanced or "hybrid" courses in the traditional curriculum. Yet, supporting both directions is complicated and resource intensive, especially for online-only courses that depend on robust, reliable connectivity and support. Also, the returning adults who enroll in online graduate & certificate programs have high expectations about service.

### **Faculty Development & Training**

There are two populations that need to be supported: early adopters or “zealots” who know what they want to do with TEL, and have been doing it, and the majority of faculty who’ve yet to discover, let alone master TEL. After years of teaching herself and making personal sacrifices to learn more about TEL, Linda Oliva was thrilled when a recent grant “bought out my course so I could take the time to really develop it into an online course. My TEL expertise and time were valued and that’s so rare at UMBC or in higher ed generally.” On the other hand, most faculty don’t have the expertise or time to really delve deeply. While this is tied to need for reward and recognition of TEL faculty efforts, there also needs to be a training and development infrastructure that will support faculty. In the words of Geography professor Tom Rabenhorst, the university needs to help faculty get beyond merely being “plugged in” to technology via access to computers. They also need to be “turned on” to how technology can help them solve problems or try new things in their teaching.

### **Culture of Reflective Practice and Scholarship**

If TEL is to grow at UMBC, it cannot be on the backs of a few zealots or as a mandate to unmotivated masses. It has to be part of an overall culture that values reflection on pedagogy and a growing scholarship of teaching. Department chairs need to set the tone and colleagues need to be encouraged to explore how learning can be enhanced through the appropriate and strategic use of technology. Many of the committee members said they had no TEL mentor, and without rewards and recognition, or a culture of innovation, they feared younger faculty would have no incentive or passion to explore it themselves. If TEL becomes solely a post-tenure domain, it will not benefit from the full faculty’s collective creativity and energy.

### **Outcomes**

The committee felt that assessment and outcomes are very important to understanding and promoting the use of TEL at UMBC. They were encouraged to hear that Provost’s office is working with OIT to adapt the student course evaluation questionnaire into an online instrument. They also felt there should be more opportunities for peer review and observation by faculty. Also, the university should study what other schools and Middle States’ are doing to evaluate the effectiveness of TEL efforts. Other colleagues to be consulted include Eliot Shimoff (Psychology), who has spent a great deal of time on assessing data about student learning, as well as Brad Humphreys, who recently co-authored a study about the performance of economics students in online vs. in-class learning environments.

### **Technical Infrastructure**

If these issues are addressed and TEL grows at UMBC, the committee is concerned that there be adequate technical resources to meet reasonable expectations from users.

## **3. Resources**

The following sites/reports were discussed briefly and considered worthy of further discussion:

### **Faculty Senate Policy on Distance Education**

San Diego, State University

<http://www.rohan.sdsu.edu/dept/senate/sendoc/distanceed.apr2000.html>

- This policy received favorable reviews in the Chronicle of Higher Education (see "A College's Detailed Policy on Distance Education," May 12, 2000). It also includes many of the TEL issues addressed by the CPC Ad Hoc committee.
- Question: Could this policy be adapted as a working document for the UMBC Faculty Senate to consider next fall?

#### **DIGITAL DIPLOMA MILLS, PART IV**

Rehearsal for the Revolution

By David F. Noble, November, 1999

<http://www.communication.ucsd.edu/dl/ddm4.html>

The entire "Digital Diploma Mills" series is at <http://www.communication.ucsd.edu/dl/>

- Noble's essay is very well written and provocative, but folks may want to read the shorter, more balanced Chronicle of Higher Education article that followed it:

"David Noble's Battle to Defend the 'Sacred Space' of the Classroom"

By Jeffrey Young

The Chronicle of Higher Education

March 31, 2000

By most accounts, Noble is an articulate, annoying, luddite. But his comparison of today's online education efforts with late 19th/early 20<sup>th</sup> century "distance education" by correspondence programs is eerily sobering and enlightening. Specifically, Nobles sees the following similarities/issues:

- Using part-time instructors instead of FT faculty for distance education.
- Paying instructors on a piece-rate basis for course modules or enrollments.
- Not fully integrating distance education into the culture (and budget) of the university.
- Admitting students under minimal or no academic standards, unlike traditional courses.
- Underestimating the time it takes to provide quality distance learning.

According to Noble, earlier for-profit correspondence education firms failed miserably because of these practices, as did similar ventures by Columbia Univeristy, the University of Chicago, the University of Wisconsin and the University of California.

#### **CPC Ad Hoc Committee on Technology Issues Charge (spring 2001)**

The Faculty Senate and several members of the administration have pointed out that the disbanded Technology Enhanced Learning (TEL) Committee served a useful purpose on campus, although there were some problems with the committee. There was some support from the committee that the issue of a replacement for the committee should be explored in greater detail. This subcommittee would begin meeting as early as May 2001 and report back to CPC and the Faculty Senate by mid fall. The committee discussed the formation of an ad hoc subcommittee charged with:

- a. Determining how UMBC should deal with TEL planning and the relationship between TEL and IT planning currently overseen by the IT Steering Committee. The subcommittee should determine if a TEL-like committee should be created at this point.

- b. Develop a list of issues that would be addressed by a new committee.
- c. Make recommendations to the CPC and Faculty Senate regarding the need for a new committee, its role and place in the current system of shared governance on campus.

#### **4. Next Steps: Online Discussion (July 9-12, 2001)**

I would be happy to reconvene the group to meet in the next week or two, but since I know some are finishing teaching a Summer Session I class, I wonder if we could do an online discussion instead. Here's what I have in mind:

- Warm Up: Discuss David Noble's essay "Rehearsal for the Revolution" from his "Digital Diploma Mills" site above. Do you agree with his comparison of DE with early 20<sup>th</sup> century correspondence or "home study" initiatives? Do you see any similarities in UMBC's history with TEL?
- Application: Could the SDSU Faculty Senate policy on distance education be adapted for UMBC and considered by the Faculty Senate next fall?
- Conclusion: Should a new TEL committee be developed to address the issues above? Could existing committees be coordinated to address them and (perhaps) better integrate solutions?

Reward & Recognition (Faculty Affairs Committee)

Strategic Planning (IT Steering Committee)

Faculty Development & Training (Faculty Affairs Committee, Faculty Development Center)

Culture of Reflective Practice and Scholarship (Department Chairs Committee)

Outcomes (Academic Affairs Committee, Undergraduate Council)

Technical Infrastructure (IT Steering Committee)

- If you have any questions or concerns, or need help using the Blackboard site, please contact John Fritz at 410.455.6596 or [fritz@umbc.edu](mailto:fritz@umbc.edu).