Bridging Digital Divides to
Strengthen the University of Maine System's
Community of eLearners

A Preliminary Report from
Teaching Through Technology Task Force
July 9, 2010

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Executive Summary

The Teaching Through Technology Task Force (T4) has functioned for four months. This report summarizes the group's work to date and contains recommendations about campus and System level transitions to a more fully integrated eLearning* organization. Distance learning (DL) is recognized as a major element of an eLearning enterprise. In practice, DL comprises a subtype among the many types or blends of hybrid academic programs offered by disciplines and programs within the curriculum.

The need to establish T4 arose out of two insights. There first was the realization that the University of Maine System had reached a high level of dependency upon technologically enhanced teaching. The second insight was that the use of technology is profoundly impacting learning, teaching and the faculty themselves.

The Chancellor asked that T4 submit recommendations relevant to institutional development and contractual agreements with the faculty. T4 organized its work having three focal themes; a) impact upon learners; b) impact upon faculty; and c) the need for a System wide eLearning vision. Recommendations are made, mindful of policy, fiscal and contractual issues. Contractual recommendations themselves will, should the committee continue, be identified and referred to the joint UMS/AFUM bargaining team for further development. See Appendix G for more information on the origins and membership of this task force.

Preliminary Findings

1) Given that digital literacy (Martin, A., 2009)* has become an imperative globally, it is important that the System see that the diffusion of technology* specifically at the level of teachers and learners is fostered more intentionally than has been the case up to this point.

2) The System should see that investments in technology are made specifically to achieve better learning and teaching outcomes.

3) The use of technologies should be driven by meaningful data informing the System and stakeholders of identifiable benefits and costs*.

* "eLearning" is defined as "… e-learning is used to describe the way people use an electronic device, usually a computer, with learning technology…. to develop new knowledge or skills collaboratively." (Liu, Gi Zen et al, 2009) See also Appendix A for a brief glossary of essential terms

Preliminary Recommendations

Two critical assumptions are the cornerstones of an eLearning vision. 1) digital literacy and the infusion of technology must be understood from a <u>developmental perspective</u>. UMS and the faculty have been integrating technologies into teaching and learning practices for decades. Building upon the success, expertise and tools currently in place is axiomatic. 2) Intentional development must employ both <u>add on and re-engineering</u> strategies. Previously, technologies were understood as "add ons' to the traditional paradigm of teaching and learning. Now we know better.

To realize greater System level intentionality, T4 recommends that UMS support: a) increase in campus collaboration developing and marketing distance learning (DL) programs and courses; b) greater internal integration of academic and IT agendas supporting objectives in the three domains (eLearning vision, teaching, learning); c) strategic educational efforts for administrative and academic leaders; and d) targeted assessment initiatives.

T4 recommends that the System consider the following fourteen actions and asks that the System identify the personnel and resources with which to implement the following:

Engagement and Collaboration
1. Encourage administrative groups to set aside time for briefings on essential elements of an eLearning vision.

2. Increase the visibility of pedagogy on the System level academic agenda.

3. Explore with Maine's Department of Education opportunities for K-16 collaboration focused upon eLearning.

4. Initiate a process of establishing eLearning as an integral part of UMS curricula, with distinctive economic resources dedicated to its diffusion as it may best serve the curricula.

5. Improve opportunities for UMS faculty and learners to identify best practices within the System.

6. With an eye upon quality curriculum as the over arching value, support collaboration between faculty and external eLearning resources locally, nationally and globally (e.g. contact eLearning associations, consortia and vendors external to the System).

7. Support campus and discipline specific eLearning initiatives. Complete a set of campus focus groups to assess the understanding and interest of stakeholders and the current status of local eLearning development from multiple perspectives.

Planning
8. Complete the identification of organizational units actively engaged in developing eLearning within UMS.

9. Complete a report on the state of eLearning within UMS. This report would consider organizational units, plans and standards and System wide consortium efforts as well as units and initiatives at the campus, System, state and higher education community levels.

10. Affirm eLearning as a formal element of strategic planning at the campus and System levels. Indicators within these plans could include specific indicators and benchmarks for improved eLearning and eTeaching.

11. Expand current fiscal and human resources to support the development of eLearning opportunities within the universities.

12. Identify or create UMS structures and policies that support, incentivize and coordinate collaboration between faculty at UMS campuses.

Research
13. Complete two studies about the impact of eLearning upon a) the work of faculty; and b) the learning of students. These studies could use i) survey; ii) campus focus groups; and iii) online forum methods.

14. Complete the identification of a set of exemplary or peer institutional practices. Consider developmental models of best practices, supports and assessment activities.

T4 was established, in part because the University of Maine System has developed its capacity to support eLearning, eTeaching and digital literacy to a point where greater intentionality and collaboration are required at the level of teaching and learning.

The System and the faculty are ready to consider more empirically the incorporation of technologies specifically as a means to achieve optimal teaching and learning. T4 recommends collecting necessary data on the experience of faculty and students. A better understanding of benefits and costs of these innovations can then be realized. The System can thereby develop a deeper understanding also of how these innovative practices influence the change process of the System itself.

Further recommendations are found in the body of the report under the three Domains (vision, impact on students, impact on faculty). A compilation of all recommendations may be found in Appendix H.

Bridging Digital Divides to
Strengthen the University of Maine System's
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I. Introduction

The cultivation of a robust community of learners requires an appreciation of the nature of eLearning and the ability to align multiple (stakeholder) perspectives. From the System perspective, eLearning has, for more than thirty years, been an emerging theme for the System and at every campus. Large investments have been made as evidenced by MaineStreet UMS, Blackboard and the ongoing Google utilization and OnlineMaine initiatives. UMS and the faculty have made major innovations in the curriculum. Online programming has been expanded, blended learning curricular designs are emerging, and levels of student and faculty digital literacy have increased dramatically.

The work of the Teaching Through Technology Task Force (T4) is aligned with the implementation plan of the New Challenges New Directions initiative. More specifically, it supports both Arena I (Implementation of the Hybrid IT Consolidation model) and Arena II (Expanding the Distance Education Mission, Modernize University College, Strengthen Learning Opportunities through Technology (item 8).

From the perspective of learners, these investments are evidenced by major changes in a) the content of instruction; b) practices of teachers and learners; c) the nature of the learning process; d) the experience of membership in the learning community; e) the means of accessing and using student services; and d) the appearance of a new 'hidden curriculum'.

For faculty members, the infusion of eLearning technologies and practices has included major changes in; a) the experience of membership on the faculty; b) pedagogies and instructional materials; b) the basic definitions of course and curricular maps; c) workload and reliance upon instructional supports; d) the prerequisites and nature of scholarship and research. Even though 30 years seems like a long developmental period, it is most accurately characterized as a period of 'early adaptors'.

In the period now emerging, greater intentionality is needed to improve, integrate and sustain eLearning courses and programs. As technologies become more numerous, complex, and requiring higher levels of digital literacy, greater rigor is needed to assure that technology in courses enhances rather than overshadows learning of curricular content.

The emergence of these practices can seem overwhelming to comprehend let alone systematically develop. And, in addition to the 'visible' elements (students, faculty roles, new technologies and course models), there are profound 'invisible' elements (e.g. adaptation costs, workload and contractual implications, policy and planning requirements). Recognizing this complexity, intentionality then requires there be elements of shared vision and planning. As well it is imperative that the benefits and costs of these innovations be carefully evaluated.

Digital Literacy: Building Upon a History of Innovation

From the perspective of learners and faculty, the acquisition of digital literacy (Gilster, P. 1997) is an essential means of acquiring the necessary mastery to participate in eLearning courses and programs. Technologically enhanced teaching and learning has evolved from smart classroom based strategies to fully blended eLearning capabilities. Adapting from a classroom centered to a blended learning paradigm implies major changes in the roles of both learners and faculty themselves.

Within the past three decades, the University of Maine System's phase of 'early adaptors' can be characterized as one comparable to urban sprawl. Absent a System-wide eLearning development framework or plan, campuses and the System itself have, in parallel, laid a foundation by focusing upon largely campus specific elements of an eLearning infrastructure. The need for an overarching vision (encompassing eLearning inclusive of distance learning) is well documented within the (2009) New Challenges New Directions self study documents.

Programmatically, collaboration within UMS relied initially upon traditional models of brokering and transferability agreements. Within the past decade, University College in providing Interactive Television and Blackboard support, coordinating System wide distance learning initiatives and assisting in marketing efforts, served as a catalyst for early eLearning efforts. Now, since the initiation of NCND, campuses are moving ahead in their effort to re-engineer programs for online delivery. For example, the University of Maine is converting and establishing online degree programs identified as being particularly suitable for this type of delivery (see Appendix B). Other recent examples of these developments are the Sloan-C conferences sponsored by University of Southern Maine and University of Maine at Augusta providing opportunities for hybrid course and program developers to network and share best practices.

Out of deference to the autonomous role of university campuses, critical issues of fiscal planning, minimal standards of eLearning course design and digital literacy expectations have been largely addressed at the campus level and within academic programs. Efforts to align digital (aka technical or computer) literacy expectations and program and discipline specific values and learning outcomes were situated at the campus or program level.

In the past five years, with distance learning in the foreground, a report on the state of eLearning within the University of Maine System (or at individual campuses) has apparently not been produced to date. Studies of distance learning (DL) wherein students and faculty are geographically distant have been produced (Handley, A., 2009). These students, courses and programs have been referred to as "ITV" or "online" entities. By contrast, a large majority of all course sections are currently using an online learning management system and virtually all courses involve online activities. Online (DL) student enrollment and retention patterns have been studied but a full profile of eLearning has yet to appear. The scope of DL studies reflects a greater capacity to utilize available data to drive (DL) curriculum planning.

With respect to understanding the impact of eLearning, T4 is aware of very few UMS studies of learning outcomes, pedagogical effectiveness or the impact upon learners and teachers, specific to DL or blended learning within the System.

However, <u>during the past three years</u>, there has, at every level, been greater awareness of the pressing need to move the System forward in this paradigm shift particularly with close attention to the need for academic integrity and the quality of pedagogy. More specifically, NCND includes studies of DL related patterns of retention and student perceptions of their online learning experiences.

Efforts have been intensified fostering greater student and faculty engagement in eLearning courses and greater online student services engagement through MaineStreet. Faculty representation on core IT advisory groups has improved. The Chief Academic Officers of the campuses have set into motion operational guidelines and principles under which campuses can achieve greater collaboration in providing online courses and programs.

On respective campuses, local eLearning development groups are engaging greater numbers of faculty even as the number of instructional design personnel has been increased. Engagement in eLearning is rapidly increasing. Responding to this acceleration, the Chancellor reported to the Board of Trustees on the need for a more intentional process of eLearning planning, collaboration and assessment.

Looking Ahead; Developing a Vision

The entire UMS community is well aware that the period ahead is being shaped, in large measure, by forces external to the System itself. Higher education globally is responding to challenges related to student characteristics, demographic and economic shifts; the continued emergence of new kinds of (within state and global) collaborative opportunities, new technologies; and clearer formulations of the nature of digital citizenship. These are impacting education at all levels (K thru 16 and beyond) profoundly.

Having a developmental perspective is implicit in the concept of vision. "Vision" itself has many meanings and requires some selective perception. Vision can be focused at various levels (student, course, campus, or System). It can refer to aspirational or probable outcomes. It can be abstract or concrete, long term or shorter term. It can be graphic or abstract.

Conceptually, Kunh's (1962) theory of "paradigm shifts" or Helen Easterling Williams' more recent conception of "pedagogical shift" and Rogers' diffusion of innovations theory (1962) are useful conceptual frameworks lending themselves to a developmental perspective. From the aspirational perspective, vision is similar to mission. Provisionally T4 suggests something like the following as a UMS vision:

> "The University of Maine System will utilize technology to provide access to comprehensive, high-quality higher education programs throughout the State of Maine, enabling more citizens to complete university degrees."

T4 organized its study focusing on the impact upon the work of teaching, of learning and the impact upon the System as a whole. Eight 'subtopics' were used to consider elements of a possible vision. Work on each of these components of a vision is summarized below and in the Appendices. The eight subtopics included:

Vision	Exemplary models
Fiscal and resource issues	Data needs
Collaboration	Student perspectives
Faculty Impact	Impact on pedagogy,

Cornerstones

Three essential themes emerged as central to the work of T4. These were a) keeping the focus upon the impact on learners and faculty; b) establishing eLearning within the context of New Challenges New Directions; and c) collaborating as a unified System.

System level preliminary recommendations related to collaboration include a) endorsing the establishment of a common System calendar and a unified three semester schedule; and b) the expanded use of compressed video capabilities (see Appendix F for details).

Consistent with Roger's (1962) description of technology infusing phase 4 ('late majority'), teaching and learning through technology as an opportunity merits careful study. And, it is clear to those involved with T4 that the System cannot afford to allow focusing upon technology itself allowing it to overshadow learning and teaching outcomes. These themes should remain the principle drivers of ongoing efforts. With these assumptions in mind, T4 believes that the next phase of this developmental process is an exemplary opportunity to demonstrate the System's ongoing commitment to innovation and serve Maine students in a less costly, more unified and effective manner.

II. Preliminary Findings and Recommendations in the Three Domains

Domain I: *Establishing an eLearning vision*
Common language is prerequisite to articulating a shared vision. Appendix A contains a glossary of selected terms used in this report.   "E-learning" has multiple useful definitions. It can be understood as offering courses using traditional electronic means of delivery (e.g. ITV courses, PolyCom courses, online courses etc.) It is often seen as synonymous with 'hybrid' or 'blended learning.' It is defined by Liu as

> "... e-learning is used to describe the way people use an electronic device,
> usually a computer, with learning technology…. to develop new knowledge or skills
> collaboratively." (Liu, Gi Zen et al, 2009)

Distance Learning (DL) for the purposes of this report, is considered as one type of eLearning. eLearning also occurs as an element within classroom based synchronous

courses. Distance learning can be defined as eLearning wherein teachers and learners are geographically distant.

An important asset used in developing a vision of eLearning with the context of the System is the ability to draw upon both the scholarship of eLearning and similar planning efforts completed at comparable peer and exemplary institutions elsewhere. See Appendix E for a preliminary summary on efforts to explore literature and identify exemplary institutions.

It is a cliché to affirm a) that leadership is critical to the success of any institutional development; and b) there is, in dynamic organizations, a need to periodically reintegrate and realign organizational units. In the case of transitioning to a better integrated eLearning System, the leadership has recognized a) the historic challenges to higher educational institutions associated with eLearning; and b) the need to reintegrate and perhaps rebalance leadership teams to further develop eLearning policies, standards, budgets and actual practices.

T4 and the Chancellor, from the outset, recognized the need to take inventory of leadership groups and committees contributing to developing eLearning capacity both at the System and campus levels. Historically, new telecommunication and computing technologies were associated mostly with System-wide IT, business and student service functions. Somewhat excepted from this generalization were the deployment of learning managements systems (LMS) such as Blackboard, Web CT, and Angel.

More recently, because of the ubiquitous nature of working and studying 'digitally', it has become clear that eLearning requires attention to devices and online resources and to relevant academic practices and policies, at the level of learners and teachers. To facilitate evolving to a revised vision, T4 began to identify and map relationships between System level leadership groups supporting the enhancement and provision of eLearning. Appendix B contains preliminary documentation of those groups. For recommendations regarding further (campus level) data needing to be gathered, see "Developing Further" (pg 14).

Highlights from the Preliminary Inquiry

Data was obtained from System level Information Technology Services, the Vice Chancellor of Academic Affairs and from all seven campuses. One campus indicated that there was no eLearning focused committee or unit per se. The University of Maine at Fort Kent reported that a campus eLearning strategic plan was under development with a completion date of October 1, 2010.

At the System level, the governance model of the IT department was the most articulated System wide network of eLearning related leaders. The mission of the IT department was limited to supporting academic units but not addressing issues related to using technologies to achieve academic outcomes per se. Nor is it a network looking at assessment, program review and the like. T4 has not yet obtained a formal report from the group of Chief Academic Officers and sees a need to engage this group should its charge be extended.

University College was the second System-wide entity supporting the development of more online programs and enrollments. UC has been historically charged with aiding in the development and marketing of distance learning programs and somewhat disconnected from campus based eLearning activities.

In summary, System level eLearning management groups are becoming more closely integrated in the context of the NCND initiative. ELearning has, until recently, been associated with technology (the IT hybrid governance model). It has also been a concern of the Office of Labor Relations shared with AFUM. For many years a joint UMS/AFUM working group has attempted to study the faculty role in eLearning and to update the AFUM contract accordingly. This effort however was limited by the scope of the charge to the working group itself.

ELearning has been managed academically within the CAO's group as issues arose or through the participation of the CAO's on the ITAC (Institutional Technology Advisory Council). At the System level, the Distance Learning Council, under that aegis of University College, met periodically and considered issues related to distance learning program development and marketing.

Since 2009, in the context of NCND, a different kind of focus on eLearning has been evolving The CAO's have produced guidelines relating to collaboration in developing online courses and program. They have begun to consider the issues related to hybrid and blended courses. Collectively, the System level leadership has become more engaged in developing eLearning capacities.

Looking forward, the System's vision is likely to place a greater focus upon the diffusion of technologies specifically at the level (and in the service of) teaching and learning, It is likely that a more complete and robust vision of System wide eLearning will emerge.

In summary, cornerstones of an eLearning vision could include; a) a more outcome centered planning process; b) explicit alignment with campus and System level strategic planning; and c) development that is learning outcome driven and d) characterized by high levels of System-wide and external collaboration.

Vision Related Recommendations

T4 recommends that UMS:

1. Complete additional data gathering both to map out the campus level landscapes and to better assess the experience of faculty and students involved in eLearning. For further details related to T4 discussions of developing an eLearning vision, see Appendix B.

2. Continue the work of developing a useful, UMS vision of eLearning and eTeaching to lead to documentation of campus and System level plans.

Domain II: *The impact on students of eLearning*

Students most acutely experience the benefits and costs related to eLearning**.** Acquiring digital literacy skills empowers students and enables them to access new opportunities and learn in new ways. Increasing the System's eLearning infrastructure results not only in benefits for the System but also for students. For example, the OnlineMaine initiative holds tremendous promise in enabling each campus in the System to collaboratively support students and integrate online content.

In brief, understanding the impact of eLearning upon students requires an appreciation of a very complex set of factors. And, care must be taken to identify unique characteristics of students taking eLearning courses so as to distinguish these correlates from those that are generic aspects of students' experiences in all courses.

From an analytical perspective, the experience of digitally literate students is impacted by an interaction of a) student characteristics, b) course characteristics, and c) characteristics of learner support resources. That said, there are also significant costs related to students engaging in eLearning. For a detailed commentary on these benefits and costs see Appendix C.

In brief, student characteristics include such variables as course workload and support expectations, learning styles, geographic mobility, local bandwidth, needs of students with special challenges, the technology related demands, study skills, levels of digital literacy, and academic preparedness.

Course characteristics include course design, degree of interactivity, faculty presence and digital literacy, pre enrollment availability of course information, access and quality of technical support personnel, access to needed technologies, linkage to UMS sites and centers, and performance expectations. Needless to say, multi-disciplinary and cross campus courses add to the students' challenges.

Students' experiences accessing and using effectively student services and advising services are impacted substantially as they become more engaged and literate. As interactivity increases, students' expectations become more discerning and new kinds of dissatisfaction, as well as feelings of accomplishment, are felt. Experiences with virtual advising lead to similar feelings.

One notable area of serious and continuing frustration is the series of roadblocks for multi-campus and non-matriculated students. Students ought not to be bearing the burden of uncoordinated back offices and should not have to juggle multiple registrations, bills and transcripts within the UMS.

The price of eLearning is not entirely composed of charges associated with the bill a student receives from his or her university. Practical costs of eLearning that are often absorbed by students include costs such as those associated with owning a computer capable of accessing and running increasingly complex software, streaming video files and the like. Many professors use specific software, such as the Microsoft Office and expect that students will have the software required to collaborate with them. Software can cost as much as textbooks or as much as several semesters worth of books for the most expensive software. Expenses incurred by students in the form of computer hardware, software, and internet access remain consequential factors for students needing access to eLearning online. The hidden financial impact to students will affect those with low incomes the most.

Student Focused Recommendations

T4 recommends that UMS:

1. Establish a dialogue including students at the campus level concerning eLearning course quality, the development of standards for eLearning, and technology literacy to adequately address the needs of students.

2. Assess the demands of technology on students and work with students to identify best practices in utilizing and assessing eLearning technology. A study is recommended to assess the impact of technology on students and their perceptions of the state of eLearning in Maine's University System.

3. Explore ways to use videoconferencing and other technologies to maximize the satisfaction for students at a distance and augment on-campus advising.

4. Provide technical support or support services offered by knowledgeable work-study students on weekends and evenings to assist students with difficulties during non-standard hours.

Domain III: *The impact upon faculty and their work*

As the System moves through the paradigm shift, it should not be surprising that, for faculty, there are both new rewards and significant amounts of distress and alienation. These characteristics of change cannot be avoided, but they can be acknowledged, assessed and collaboratively managed. A study of exemplary practices in higher education can assure us on this point (see Appendix E).

Arguably, it was the impact of technology upon the work of faculty members (effectiveness, role, workload, expertise, professionalism etc.) that has been the genesis of T4 itself. Both the promise surrounding teaching with technology as well as the "role strain" (Goode, Wm J. (1960); Merton, R.K., 1949) speak to the experience of faculty members as they cope and thrive while teaching through technology.

The rewards of teaching, advising, providing service and producing scholarly works using technology, are many. The intrinsic rewards are substantial, including the promise of more effective teaching, advising and scholarly productivity, and of learning new skills (digital literacy) and applying them using contemporary tools. Such rewards however may not be well distributed across the faculty as a whole nor has there been a systematic study of the contingent incentives involved.

Lacking a systematic approach to cultivating faculty digital literacy and providing systematic supports to match rising expectations, it is likely that 'early adaptors' will indeed find rewards whereas members of the 'early and later majorities' as well as the 'laggards' (Rogers, E. 1995) may find the transition less rewarding. These patterns will also vary across disciplines, across campus cultures and across generational divides.

Hence the construct 'digital divides' (Brown, R. H., 1995) is a useful one in considering how faculty members are making these transitions. It is the hope of T4 to contribute to bridging these divides.

On the cost side, indications of role strain reflect the struggles of faculty members as they work to maintain their expertise (skills and knowledge) and provide high quality teaching, scholarly work, advising, curriculum development and services to both the university and to the greater community. Appendix D contains two documents indicating the broad scope of the impact of teaching upon the faculty as well as the concerns documented by the Associated Faculties of the University of Maine over at least the past five years.

Those unaware of the actual work of the faculty might suspect that these concerns might be fears of untrained or unskilled faculty, as 'whining,' or even as a nefarious means to unreasonably solicit additional compensation. These concerns could also be construed as anecdotal impressions of outlier faculty rather than concerns shared by the faculty as a body of the whole. These are hypotheses to consider.

There is then a need to obtain meaningful data reflecting the experiences of faculty across the University of Maine System. Fortunately, there are numerous good quality models of ongoing eLearning survey efforts targeting both faculty and students. For a listing of these, see Appendix E.

Faculty Focused Recommendations

T4 recommends that UMS:

1. Conduct a survey of part and full time faculty similar to those exemplified in Appendix E.

2. Continue to review relevant literature and consultant expertise be obtained to facilitate planning and ways to support continuing efforts of the faculty to utilize technology.

3. Conduct a series of campus based focus groups to gather further faculty recommendations and data that might be useful in developing eLearning strategic plans.

4. Solicit from each campus faculty governance group data and recommendations related to strengthening the practices of faculty teaching through technology.

III. Developing Further

In the past four months, T4 could not contribute significantly to address the unmet needs of students, faculty or of the System itself. The need for T4 appears to have arisen from the fact that moving towards fully integrated eLearning practices entails perhaps unidentified costs as well as benefits for faculty and for students. Exemplars of universities and disciplines well along in the process of strategically developing eLearning curricula suggest that more intentional, collaborative and integrated planning (and assessment) may serve the students, the faculty and the System well. This report closes with a consideration of investment resources.

Financial and Resource Considerations

The addition of new technology, as well as continuously improving the use of in place devices and methods, necessitates a thoughtful discussion of both reallocation and additional resources and support. In order to remain current and effectively support technology mediated activities across and within disciplines, continued intentional investing in people and technology are required. In addition, existing UMS human and technology resources should be leveraged through enhanced collaboration and cooperation. Discussions about future potential investments in eLearning should consider both financial and time investments to advance the capacity and sustain the quality of online, hybrid and technology-enhanced education.

The annual Horizon Report (The New Media Consortium and the EDUCAUSE Learning Initiative) provides useful information and analysis about emerging trends and technologies that will likely have an impact on college and university teaching and learning. In addition, it provides estimates of the "time to adoption" for each technology to be implemented within a college or university. As the UMS develops a vision for eLearning, time and money must be effectively factored into the planning and implementation process.

The UMS is attempting to address eLearning issues at a time of declining state support for higher education amid the landscape of international economic instability. Creative approaches will be required to allocate attention and funding for eLearning development within the UMS. For example, system-wide initiatives such as the Strategic Investment Fund (SIF) might consider allocating a percentage of that pool for investment specifically in eLearning activities.

As referenced in the recent Noel Levitz assessment report of the UMS, investments in eLearning and online teaching and learning opportunities, do not necessarily result in "new" students or greatly increased revenue streams for institutions. At least initially, new online offerings often represent alternative course delivery systems for currently enrolled UMS students. Targeted investments by the UMS for potential out of state or international students will be required to access new student groups.

Re-engineering and Investments in Professional Development

Professional development support for faculty at UMS universities is primarily associated with academic disciplines. In order to expand eLearning courses and programs, additional opportunities and support for faculty should be provided both within and across disciplines. A separate dedicated pool of funding for eLearning professional development and incentives should be explored.

Peer mentoring represents one of the most effective strategies for supporting faculty who wish to enhance their knowledge and practice. A conversation about how to support and finance faculty mentoring activities should be undertaken within the UMS.

Formal and informal standards for technical literacy vary according to discipline. Opportunities should be structured at each university to develop peer expectations within each program. Future program development and existing program review processes should include an analysis of technology expectations and best practices.

An audit of eLearning assets within the UMS can enable faculty and staff to identify best practices and to create mentoring and collaboration opportunities across departments and institutions. This has been begun as T4 has a) assembled a preliminary 'map' of eLearning focused System level development groups; and b) called for additional data to create campus landscapes describing statuses of eLearning within each campus culture.

A centralized location (website) should be designated to provide information and contact data for interested UMS parties regarding existing eLearning assets.

New Investments in Technology and Infrastructure

New models for financing future investments in technology and infrastructure within the UMS should be explored (for examples see Appendix E). External funding opportunities should be investigated including foundations and corporate support. Increasingly, rental options are emerging for hardware and software resources due to the rapidly declining "shelf life" for innovative hardware, materials and programs.

Local opportunities to partner with or complement technology developments within the K-12 sector should be explored. For example, the recent Maine laptop initiative resulted in increasing technology literacy within K-8 classrooms. Some preliminary conversations

between the Department of Education and the UMS regarding these topics have been undertaken.

Investments in Technical Support for Faculty & Students

Investments in technical support and development for faculty and students already have taken place within University College, and specialized units at UMaine, USM, UMM and possibly on other campuses as well. Several of the UMS universities have dedicated instructional designers who assist faculty and staff with eLearning implementation. Efforts should be made to evaluate the effectiveness of these investments and leverage existing technical and instructional support resources within the UMS. Quarterly meetings might be one way to focus on information exchange and policy recommendations. Alternatively, the UMS Distance Learning Council or even an eLearning Best Practices advisory group could facilitate this leveraging and host meetings to expand expertise and networking possibilities. Investing in students who are skilled in the area of technology applications could increase the amount of mentoring for other students and for faculty. Dedicated work study or part-time positions for students could be created to assist with off-hour technical support for eLearning students.

Investments in Marketing

Strategic investments in online marketing must be made by the UMS to strategically pursue new Maine, national and international eLearning students. The creation of the centralized OnlineMaine website creates an opportunity to initiate a strategic marketing approach. Online marketing is a crucial necessary cost of positioning the UMS to obtain an appropriate market share of students seeking eLearning courses and programs.

Continued Investment in the T4 initiative

The T4 initiative represents an investment by the Chancellor to advance eLearning opportunities through the development of support for faculty and students within the UMS. Continued investment in this initiative provides an ongoing opportunity to continue the dialogue and to implement some of the recommendations generated by the T4 group.

Investment Recommendations

T4 recommends that UMS:

1. Expand current fiscal and human resources to support the development of eLearning opportunities within the universities. For example, the System Office should seek membership, on behalf of all campuses, in the Sloan Consortium (www.sloanc.org) and Quality Matters (www.qualitymatters.org). These and similar resources can provide substantial assistance to faculty and other UMS community members.

2. Extend the charge of the T4 group for the 2010/11 academic year to continue its work and provide modest resources for carrying out the data collection and dialogue related to the current state of eLearning in UMS and the impact on faculty and learners.

IV.   Conclusion

T4 was established, as the University of Maine System has developed its capacity to support eLearning, eTeaching and digital literacy to a point where greater intentionality and collaboration at the level of teaching and learning, are required.

Knowing there are inherent costs and risks involved, it appears that the System and the faculty are prepared to collaborate in a more intentional and data driven manner. The next step is to ask students and faculty directly about their experiences while being mindful of variations both across campuses and disciplines. With better data, leaders and the faculty themselves will have a firm basis upon which to plan and develop innovative and successful programs without sacrificing the uniqueness of UMS programs and curricular strengths.

In closing, the core insights gained by this preliminary T4 effort to date are:

1. It is necessary to provide more direct technical support for students and faculty to allow for more intentional development of eLearning capacities.

2. It is critical that investing in technologies be directly linked to better teaching and learning outcomes within the disciplines

3. More intentional or strategic use of technologies must be guided to a greater extent by meaningful data.

4. Rather than viewing technologies as 'add ons', intentional eLearning development should be viewed as a necessary development that can positively influence the evolution of the System itself.

APPENDICES

Appendix A

Working Glossary

"eLearning". This term has many definitions (see vision discussion below). For the purposes of this report, eLearning is defined using Liu's (Liu, Gi Zen et al, 2009) definition.

> "In a broad sense, e-learning is used to describe the way people use an electronic device, usually a computer, with learning technology…. To develop new knowledge or skills collaboratively."*

ELearning and eTeaching are evolving practices using numerous technologies applied in contexts across the disciplines.

there is no shortage of successor terms having been proposed that may eventually replace 'eLearning'. This term however is a sturdy and useful one given the purposes of this report.

"post digital era" is a term similar to "ICT or digital fluency" within the digital literacy literature. It refers to a time when blended or hybrid learning/teaching has become fully incorporated within an institution, system (or individual's) understanding, resource base, policies and practices. In other words, it is an era when "the paradigm has shifted" and an entity has (and can demonstrate) digital fluency.

As a start – glossaries of eLearning terms. This list is a work in progress.
1. http://www.e-learningguru.com/gloss.htm#E
2. http://www.worldwidelearn.com/elearning-essentials/elearning-glossary.htm
3. http://www.cybermediacreations.com/elearning/glossary.html
4. http://www.elearnspace.org/Articles/elearningcategories.htm

Appendix B

System level eLearning working groups and campus landscapes

Preliminary efforts to assemble both a complete listing of System level working groups and information needed to develop campus eLearning profiles, resulted in the following data being gathered. In response to a request for this kind of information, Chief Academic Officers provided the following. A listing of groups reported by each university is provided in the graphic below.   Information about charges and membership follows this summary.

University of Maine

University of Maine*
- University-wide Information Technology Council
- Undergraduate Program Curriculum Committee
- Graduate Board (Curriculum Committee)
- College/Divisional Curriculum Committees
- Distance Education Advisory Committee
- IT Faculty Development Center
- Center for Excellence in Teaching and Assessment
- Faculty Senate (Ad Hoc Committee on Faculty Assessment of UMaine Educational Technology Mission and Supporting Infrastructure)
- College and Other Academic Units' Technology Committees

University of Maine at Augusta

University College

UMS Online course Rubric Development Group

Distance Learning Advisory Council

BlackBoard Core Group

University of Maine at Farmington

No groups

University of Maine at Fort Kent

UMFK Distance Education Sub-Committee

University of Maine at Machias

Technology Advisory Committee

University of Maine at Presque Isle

Information Technology Advisory Group

University of Southern Maine

Technology Enhanced Learning Advisory Council

Tech Steering

Online Course Evaluation Work Group

Online Student Services Working Group

Center for Technology Enhanced Learning

University of Maine System
Student Systems Steering Committee

UMS portal committee (ad hoc)

IT Leadership Council

IT Director's Group

IT Advisory Council

Teaching Through Technology Taskforce (T4)

Board of Trustees Technology Committee

**UMS eLearning Development Working Groups with
Charges and Memberships**

University of Maine*

University-wide Information Technology Council - fosters campus-wide discussion regarding IT issues and considers recommendations for solutions. Each college, Division of Lifelong Learning, Cooperative Extension, Fogler Library, IT, Faculty Senate, and Vice-President for Administration have formal representation on the Council (advisory to the Provost, VP for Administration and President).

Undergraduate Program Curriculum Committee - oversees academic matters pertaining to undergraduate curricula including new course and program proposals from all academic departments and units, as well as modifications of courses and programs (e.g. those proposed as online options).

Graduate Board (Curriculum Committee) - Graduate School policy is made by the graduate faculty, acting through the graduate board. New courses and programs and their delivery mechanisms are also reviewed as proposed by the colleges and Graduate School.

College Curriculum Committees - representing faculty of departments/colleges/other academic units, curriculum committees have academic oversight of courses and curricula including the development of online and other distance education options. When appropriate, these committees work with both the UPCC and Graduate Board.

Distance Education Advisory Committee - faculty membership representing departments/colleges, this committee serves the Continuing and Distance Education Division and Summer University staff in its faculty development grant program which supports course and program conversion to online options. Additionally, it sponsors a campus-wide Faculty Forum that features all new grant-funded online courses.

IT Faculty Development Center - the Department of Information Technology conducts a grant program for faculty to develop technology-based resources for their courses, specifically to produce direct and significant improvement in undergraduate and graduate teaching and learning by using technology. Additionally, its Faculty Laptop Initiative is designed to provide laptops to faculty at little or no cost to them.

Center for Excellence in Teaching and Assessment - promotes the continuing improvement in the quality of teaching and learning at the University of Maine. Advised by a committee of faculty, staff, and students, CETA conducts faculty development workshops, many of which incorporate technology resources.

Faculty Senate (Ad Hoc Committee-Faculty Assessment of UMaine Educational

Technology Mission and Supporting Infrastructure) - currently assessing all campus technology supported units.

College Technology Committees - many colleges and other academic units have internal technology committees that help support faculty and staff in their daily work and in addressing internal technology issues. Often, members of these committees serve on the UMaine IT Council.

* The University of Maine will convert or establish degree programs that have been identified as priority candidates for online delivery. This will be an important way for UMaine to be responsive to emerging needs within the state.

University of Maine at Augusta and University College
- UMS Online Course Rubric Development Group (ad hoc) – planning for online faculty evaluations
- Distance Learning Advisory Council
- Blackboard Core Group –Technical resource and input regarding Blackboard implementation, upgrading and potential replacement

University of Maine at Farmington – no groups identified.

University of Maine at Fort Kent
- UMFK Distance Education Sub Committee

Charge

1. The Subcommittee will develop a draft Distance Education Strategic Plan by October 1.
2. The Distance Education Subcommittee will review which education programs to offer online and make recommendations to the QUE Council.
3. Distance Education Subcommittee will make a recommendation to limit the number of online courses students take. (also freshman)
4. Distance Education Committee will review and make a recommendation on course enrollment caps.
5. Review policy on online course development
6. Create a position description for the DE person (chair or director)
7. Build the organizational structure for DE
8. Build a budget
9. Review the distance education policy for substantive change and discuss where we are at with our programs and distance education
10. Create a policy for the opening of courses prior to the start of the semester
11. Review course sequencing

University of Maine at Machias
- Technology Advisory Committee – Recommend policy and budget priorities to President, facilitate communication. Includes IT and DE.

University of Maine at Presque Isle
- Instructional Technology Advisory Group

  Membership: One faculty member each from College of Professional Programs and College of Education, and two faculty members from College of Arts and Sciences (one from Math/Science, one from Arts/Humanities) (appointed by each chair), the Director of Instructional Technology, the managers from Information Services, and the VPAA.

Charge: Provide avenue of communication on instructional technology needs, issues, solutions, and future visions between all members. Bring faculty representatives and Information Services personnel together to share information regarding instructional technology, while providing requested feedback to the Director of Instructional Technology, Information Services personnel, and the VPAA. It is expected that all members will communicate the work and outcomes of the group to their respective Colleges and work units.

Example of working tasks/objectives
- This committee should meet approximately twice a month to discuss the following:
  - Scheduled changes to instructional technology (including computer labs (software and hardware) and Blackboard)
    - The timing of changes
    - The testing plan (who and what)
    - Communication plan (who, when, and how)
  - Technology problems with any instructional technology including distance education
    - Newly identified problems (since last meeting)
    - Update on status of previously discussed problems
  - Training needs
  - Online course development needs

University of Southern Maine
- Technology Enhanced Learning Advisory Council (TELAC, see http://usm.maine.edu/ctel/advisorycouncil.html for membership and charge): A formal committee of faculty, staff, and administrators that advises, recommends, and fosters online and other technologies

- Tech Steering: An informal group of staff and faculty interesting in technology, some topics are relevant to online such as deciding on software to support media production. Current members include AnnMarie Johnson, Sue Goodrich, Barbara Stebbins, and Scott Kimball, CTEL; Stephen Houser and Mary Beth Davidson, IT; David Nutty, Libraries; Angela Cook, ITMS; Michelene Delecrow, Law; Sandra Bogdanoff, Muskie; Alan Kaschoub, Music; Jason Howard, ASET.

- Online Course Evaluation Work Group: an informal group of mainly faculty who worked out a set of 13 course evaluation questions specific to online/blended classes. No formal membership, just whoever showed up at meetings. Kreg Ettenger and AnnMarie Johnson convened the meetings.

- Online Student Services working group: informal group of staff in areas such as advising, registration, libraries, tutoring, Outreach, etc., working on identifying needs for online services (for all students) and then implementing them. Amy Gieseke (Chair) Coordinator of Online Student Services, Outreach; Janet Casey, Graduate Studies; Kim Warren, Director of Student Services for College of Education and Human Development; Sue Goodrich, CTEL; David Vardeman, CTEL; Kim Marie Jenkins, Student Success Center Coordinator at LAC; Rodney Mondor, Student Success Center Coordinator in Portland; Mary Beth Davidson, IT; Cassandra Fitzherbert, Library Services; Peggy Moore, Math Faculty; Christen Stande, Professional Development Center; Monique LaRocque, Academic Outreach

- Center for Technology Enhanced Learning: This is the USM department for online (and other technology) teaching. AnnMarie Johnson, Director; Scott Kimball, Barbara Stebbins, and Sue Goodrich, course designers; Amy Gieseke, Coordinator of Online Student Services; David Vardeman, admin assistant.

University of Maine System
- Student Systems Steering Committee – MaineStreet implementation and coordination
- UMS portal committee (ad hoc) –evaluate and recommend a structure for UMS web portals
- IT Leadership Council (See below for further information)
- IT Director's Group
- IT Advisory Council
- Teaching Through Technology Taskforce (T4) (See below for further information_
- Board of Trustees Technology Committee (See below for further information)

Roles and contribution to the hybrid framework of
Information Technology at the University of Maine System

The Hybrid IT Model
Information Technology Services are provided by a mix of shared services from the system and additional services from Campus IT units and other units across the system. The System CIO and campus IT leaders along with support from the administration up to the Board of Trustees has approved the recommendation to move from the current de-centralized model to a hybrid Model.

The responsibility for moving to this model rests with the System's chief information officer along with the campus central IT leaders. Several groups have been formed or were in existence governance, collaboration and execution.

The hybrid model provides an opportunity for each campus IT organization to develop IT plans and strategies to support the mission and goals of their campus, while taking advantage of consolidated shared services and collaborative efforts that strengthen the overall system-wide delivery of services to end users.

 This model is designed to take advantage of the best features of centralized and decentralized approaches. By employing a shared-service group, costs are lower, more visible and predictable. UMS   IT (continued)

Campus-centric support provides greater responsiveness to local requirements and closer alignment with business-unit strategies. Through this structure, opportunities for cost savings, training and joint implementation of technologies will be possible.   Collaboration will further result in synergies, efficiencies and elimination in duplication of effort where possible and allow all entities to leverage technical skills and talent that will enhance the delivery of IT services.

Information Technology Structure
Overall leadership and oversight of IT services across the system resides with the System's Chief Information Officer (CIO).   The CIO is the senior administrator responsible for maintaining an integrated, efficient, sustainable and responsive program of information systems, technologies and services for the System and its campuses. This includes technology and infrastructure support services for academic, research and administrative computing.

 This mission can only be met with a collaborative approach between the system and campus IT units. The CIO has direct authority over the system-wide IT services and with the adoption of the Hybrid Model a formal dotted line working relationship with campus IT leaders.

Each campus is led by an IT Director (with various titles and levels of responsibility). IT directors will advocate for and collaborate on campus IT issues. The IT directors will be formalized as the IT Leadership Council to address specific IT needs where collaboration is necessary for efficient and cost effective operations.

Information Technology Leadership Council
IT Leadership Council Charter

The overall charter of the IT Leadership Council is to assist the CIO in maximizing the value and effectiveness of IT across the UMS by developing shared IT principles, shared infrastructure strategies, and a shared IT architecture; and by providing input to governance groups on business applications, and IT investment and prioritization.

The success of the hybrid model relies on key decisions derived from the charter: how IT will create business value, how we build shared services, and the technical guidelines and standards that we use. Input to applications we need as well as how much and where we invest reflect the distributed expertise and business alignment associated with members of this council.

IT Directors will meet bi monthly and share in the management responsibility and success or failure of the approach.

- Critical Charges of the IT Leadership Council

To address the principles of the charter, the IT Leadership Council is charged with the following discrete undertakings.

1. *System wide architecture and standards* – Document the current IT Architecture and develop a target Architecture that reduces complexity and provides a guideline for standard solutions to the extent possible for all Campuses while allowing flexibility based on unique requirements and business case support and analysis.

2. *Strategic Direction for IT* – Develop a direction, not a detailed plan, which will identify ways that IT can increase the business and academic value of the UMS. As part of this direction governance structures of IT at campuses as well as the System-wide level can be recommended.

3. *End –to-end IT service delivery process* – Adopt a common IT service management structure (like ITIL) to ensure reliable and compatible service. Aspects such as the service catalog (System and campuses developing a service catalog for our communities) and change management should be addressed first. Processes and Responsibilities need to be documented and agreed to so that service to end users is improved and who provides what is invisible to the user.   Development of Service Level Agreements (SLAs) and Memoranda of Understanding (MOUs) for services will be an outcome of this process.

4. *Process for determining and employing new technologies* – Identify and Outline a process for adding, and not adding technologies. This process will include a business case basis for all new IT projects over a specified dollar value. New Technologies will be evaluated to provide capabilities for all campuses from a single organization based on pilots, etc.

5. *System wide security policies and practices* - Identify and document security practices aimed at countering known or potential security vulnerabilities and create teams that will continue to assess and address information security issues.

6. *Collaboration Strategies* – Determine skill groups like Application, Telecommunications, Servers/Storage Systems, Security, etc will be formed to share best practices and leverage expertise across the system. Establishing virtual teams will become a forte of this hybrid organization. Each component System, Campus or unit on a campus that performs technical work will have to document its respective domain so that the boundaries and dependencies are fully understood and there is a plan to reduce complexity and duplication.   Several projects will be undertaken to facilitate this integration.

- IT Leadership Council Projects
To move toward tighter collaboration in a workable hybrid model that improves services and lowers cost, the IT directors had agreed to work on several initial projects. The IT Leadership Council will consider and develop costs and feasibility estimates for these <u>suggested</u> projects, as identified below. Status of the progress on these projects will be documented and tracked separately.

    a. E-Mail Consolidation – IT Leadership Council will work together toward more efficient email services, reducing the number of independent email servers. A single consolidated email service would be most efficient to operate.

    b. Server Consolidation – Each campus was to work on consolidating their server environment in advance of considering a higher level of server/storage consolidation at the data centers located in Orono and Portland.

    c. Desktop/Laptop Procurement – An RFP will be developed discussed and considered.

    d. Evaluate migration from MS Office to Open Office or Google Documents. …to provide an opportunity and evaluation proposal to the SWS Advisory Committee.

    e. Common Soft/Courseware Licenses

    f. In consultation with campuses, select an overarching portal for the system and campuses.

    g. UMS-ASDS support the implementation of Advance at the other campuses.

IT Governance

IT governance will facilitate the development of System-wide Plans, IT policies and core decisions that will align IT initiatives and services with the goals of the campuses and system. The governance structure will assess IT business cases, priorities, shared services, budgets, standards, etc.

An Information Technology Advisory Council (ITAC) will work with the IT Leadership Council to review and recommend major IT initiatives across the system and to assist the IT Leadership Council in coordinating IT planning at the system and campus level.   The ITAC will review system-wide specific initiatives, specific campus IT initiatives or plans that might be leveraged across the ITAC and IT Governance System, and the overarching IT architecture. The ITAC will provide recommendations on academic initiatives which need to be considered and funded to the System Wide Services Advisory Committee.

The Information Technology Advisory Council will review the progress toward implementation of this hybrid organization. The ITAC will meet quarterly with a composition of executive stakeholders from across the system with ex-officio members of the IT community. The System CIO will act as the ex-officio chair.

There also exists an overall steering committee including all modules within the ERP and some outside for administrative and student services applications. This document can be accessed at www.maine.edu/system/its/test3.htm

System Wide Services Advisory Committee, comprised of the campus CFOs, will address funding and help shape the priorities and services provided by SWS.

System-wide academic and administrative user groups provide input for IT systems. For example, the Blackboard Core Group provides input into issues relating to Blackboard configuration, changes, and upgrades.

All IT Projects over $50,000 require a business case per APL at www.maine.edu/system/its/policies.htm. System wide IT projects will require an overall sponsor which must come from the appropriate functional area at the system and campus level. Currently we have overlap and gaps in the above governance structure. Changes will be recommended to clear up the issues that currently exist.

Draft Charter for
The Information Technology Advisory Council

Purpose:
The Information Technology Advisory Council (ITAC) will work with the IT Directors group to review and recommend major IT initiatives across the system and to assist the IT Directors group in coordinating IT planning at the system and campus level.

Specifically, the ITAC will:
- Review system-wide specific initiatives, both short and long term.
- Review specific campus IT initiatives or plans that might be leveraged across the system, as decided and presented by each campus.
-Review the overarching IT architecture and the progress that is made toward implementing the Hybrid Organization as recommended.
- Provide recommendations on academic initiatives which need to be considered and funded to the Shared Services Advisory Council who will help shape the priorities and services provided by SWS.

Example Issues:
- Information repository for faculty and students.
- Distance Education/Instructional Technology.
- Campus wiring infrastructure and network convergence.

Membership:
The ITAC will be made up of primarily Academic management up to the VP level. Each campus will be invited to provide a representative. An additional member will be named to represent the library community across the system. . A list of members is attached. The IT Directors group will provide ex officio technical representation.

Meetings:
The ITAC will meet quarterly or as issues may require. Meetings will be help via video conference or telephone conference.

Information Technology Advisory Committee Representatives

UMM – Stuart Swain, Provost and Vice President for Academic Affairs

UMF – Allen Berger, Vice President for Academic Affairs

UMPI – Michael Sonntag, Vice President for Academic Affairs

USM – AnnMarie Johnson, Director of Center for Technology-Enhanced Learning

U Maine – Charles Slavin, Dean of the Honors College

UMFK – Rachel Albert, Vice President for Academic Affairs

UMA – Josh Nadel, Vice President for Academic Affairs, Alternate Tom Abbott, Dean of Libraries and Distance Learning

Library Representative – Joyce Rumery, Dean of Libraries, Umaine.   Backup: David Nutty, Director of University Library, USM.

Blackboard Core Group

BB Core committee – New members
- New representatives from faculty
  - Paul Myer – UM
  - Mariella Squire – UMFK
  - Jodi Williams – UMA
  - Walter Kimball – USM
  - Shallee Page – UMM
- Annmarie Johnson – Director, Center for Technology-Enhanced Learning, USM

Teaching Through Technology Task Force

The Chancellor will establish a Task Force to review and make recommendations about issues related to teaching through technology. The establishment of this task force is a result of work of the Distance Education, Academic Computing Committee created under Article 12 of the UMS-AFUM collective bargaining agreement. The parties recognize the need for a collaborative and systemic review of the current state and future direction of teaching through technology in UMS.

Task Force Membership
The Task Force shall be composed of 10 members, with four appointed by the President of AFUM, four appointed by the Chancellor, one designated by the Faculty Representatives to the Board of Trustees, and one designated by the Student Representatives to the Board of Trustees. The Chancellor shall also appoint a technology liaison to work with the Task Force when its discussions are directly related to technology issues. Members shall be persons familiar with issues related to teaching through technology. Co-chairs shall be appointed by the Chancellor and AFUM President.

Task Force Charge
The Task Force charge is to engage in a collaborative and systemic review of the current and future state of teaching through technology in the University of Maine System. This will include issues such as the impact of eLearning on faculty development related to technology and pedagogy; assessment and metrics including course evaluations; the faculty role in curriculum and governance; future needs for the UMS technology infrastructure; student needs and preferences; impact on enrollment and retention, including the potential for enrollment growth; and UMS's strategic vision for the role of teaching through technology.

In studying these issues the Task Force will consider models from other universities and university systems to assess best practices and future directions, recognizing that in a rapidly evolving situation current technology, organizational models, policies and practices may rapidly become outdated.

Timeline
Task Force members shall be designated by March 1, 2010 and the work of the Task Force will be completed by June 30, 2010. UMS will provide a facilitator to work with the group and staff support.

The Chancellor will review the recommendations of the Task Force and may refer issues for future action to UMS presidents or chief academic officers, collective bargaining (e.g. compensation and workload), or University College Outreach.

UMS members: 1 president; 1 chief academic officer; 1 campus person with responsibility for oversight of TTT; 1 dean; 1 technology liaison. Staff to Task Force: Facilitator, Research Assistant, Logistics and administrative support

Board of Trustees Technology Committee
Duties and Responsibilities

The Technology Committee shall review and monitor the current technology within the University of Maine System, its scalability and determine the future state of that technology.

The primary duties and responsibilities of the Committee shall be to:

1. Approve and monitor the costs of technology investments for the University of Maine System.

2. Monitor the implementation of the MaineStreet Oracle/PeopleSoft software.

3. The meetings of the Committee ordinarily shall be called by the Committee chair, but may be called by the Chair of the Board or a majority of the Committee.

4. All Committee actions shall be reported to the Board of approval.

Membership of the Committee
The Technology Committee shall be made up of at least three voting members of the Board of Trustees. The Chair and Vice-Chair of the Board and the Chancellor of the University System shall be ex-officio members, but the Chancellor shall have no vote. Faculty & student representatives to the Board may be members of the Committee, but have no vote.

Staff to the Committee : The Technology Committee shall be staffed by the Vice Chancellor for Administration and Finance and Treasurer of the University of Maine System.

The Technology Committee members as of May 2010 are:

Kevin McCarthy, Chair	Eleanor Baker
Norman Fournier	Tamera Grieshaber
Lyndel Wishcamper	Nathan Grant – Grad. Student Rep. – UMS
Cynthia Nesbit – Student Rep. – UMA	6/21/10

Appendix C

Impact of eLearning on Students

Studying the impact of eLearning upon students takes into consideration various learning styles. Face-to-face instruction methods can be adapted to work in an eLearning environment in order to deliver instructional material to students with various learning style preferences. Technology allows for the delivery of educational material through a variety of channels, such as audio, visual, written, and may even include practical application exercises. The multiplicity of delivery methods allows for a wide range of possibilities for course implementation, which may compensate for loss of face-to-face interaction (Neuhauser, 2002).

Some students find eLearning easier than others do. ELearning success is influenced by various factors, most notably a student's exposure to a given technology, learning style, and ability to manage time. **A dialogue at the campus level concerning course quality, the development of standards for eLearning, and technology literacy should be initiated so that the learning needs of students can be adequately addressed**. ELearning course development standards are important for developing quality courses that consistently meet or exceed the learning outcomes of face-to-face classes. Technology literacy, for both students and faculty, is vital because no technology medium for eLearning delivery is effective unless educators and learners can take full advantage of the features of such technology.

Quality of learning
When courses are properly designed, they provide the opportunity for reinforcing important concepts and facilitate a self-paced learning environment that improves comprehension and retention (Robberecht, 2007). A number of studies show similar learning gains between online learning and face-to-face learning, while some show better learning in online environments. Some note that the discussions and interactions in online forums often show greater depth and increased quality of discussion.

The value of eLearning for place-bound students is already well known. Students who live on or near a campus also benefit from eLearning. A meta-analysis of online learning research by the U.S. Department of Education revealed a statistically significant increase in the **learning achievement of students taking courses online compared with students learning through face-to-face instruction** only (Means, et al., 2009). The Department of Education research suggests that greater student performance through online courses compared with face-to-face learning is the result of self-selected students that spend more time on task (Means, et al., 2009). It should be no surprise that students who spend more time working on course material also show the most learning progress. The Department of Education study demonstrates how a well-designed eLearning curriculum can keep students on task and result in excellent learning outcomes.

Demands on students

Online courses place different demands on students than traditional face-to-face classrooms. Students who take eLearning courses must have the ability to manage their time wisely. One recent study demonstrates that **students who set goals, strategies, and manage their time wisely learn better** in the online learning environment than students who do not perform these tasks well (Barnard-Brak, et al., 2010). This does not mean that students cannot be motivated to learn in an online environment. Students feel more engaged with the material when there are interactive online discussions between students and the faculty. Asynchronous dialogue through a discussion board can allow a student more time for deep contemplation about a topic before responding while synchronous online chat rooms promote quicker thinking. Discussions with students reveal that students also like the scheduling flexibility of online courses because they do not need to be at a certain place at a certain time; the exception being eLearning courses held synchronously. Research by Spector (2005) performed at Syracuse University supports the assumption that online courses allow students more flexibility. It is important that the University of Maine System consider the demands of technology on students and listen to students about how to utilize eLearning technology.

A study is advisable in order to discover the impact of technology on students and student perceptions of eLearning in Maine's University System. The Educause Center for Applied Research (ECAR) regularly performs similar studies regarding the impact of technology on education. Much of the existing research concerning the impacts of technology focuses on traditional undergraduates. University College conducted a survey of students at UMA and sites and centers two years ago, which yielded important demographic data. If a study moves forward, it is essential to keep in mind the needs of graduate and non-traditional undergraduate students.

Access

Maine's rural population often does not have access or the ability to afford high-speed internet connectivity from home. The only alternative to a high-speed connection is the very slow dial-up connection. Dial-up makes it difficult for some, especially non-traditional students, to take full advantage of eLearning technology. University College centers could serve as access points to fast internet connections for students unable to access the internet through high-speed methods. University partnerships with local libraries would also encourage students to enroll in eLearning courses that they might not otherwise be able to take through standard dial-up. **Partnerships**, such as the USM and Time-Warner Cable **agreement to provide students with discounted high-speed internet, would make internet access more affordable for students**.

It is important not to forget about the access needs of students with special challenges, including but not limited to the visually or hearing impaired. Teaching through technology in a way that accommodates the challenges of students who have lost the use of part of themselves is important as Maine's public universities adopt new tools and policies. **All eLearning tools used should be compatible with or be able to make use of adaptive**

and assistive technologies for the physically or sensory challenged whenever possible.

University College currently does an excellent job of maintaining a website with information about online courses and advising. Unfortunately, some course material is not easily searchable through the online course catalog. Information about degree programs offered by specific universities is only available through the respective university's web site. Furthermore, very few completely off-campus degree programs exist through University of Maine System campuses. Collaboration and cooperation between the all seven universities is essential in order to promote a marketable set of eLearning courses and degree programs.

The seven campus **OnlineMaine initiative is a tremendous opportunity for each campus in the System to work together** to develop online content. Students will benefit from OnlineMaine with increased availability of courses, more degree programs offered completely online and easier access to data regarding courses or degrees offered. OnlineMaine has the potential to be an amazing student resource by enhancing what already exists on the University College website and putting all of the resources students need for online academics in one place.

Student services and advising
In the areas of student services and advising, a great deal of discussion and back-and-forth is needed to assess student needs, readiness and desires. Students often express dissatisfaction at faculty availability and tardiness in responding. Virtual advising can address some of these concerns but there should be a synchronous component. **UMS should explore ways to use videoconferencing and other technologies to maximize the satisfaction for students at a distance and augment on-campus advising**.

Student Systems are continuing to make improvements to MaineStreet. However, **one area that is a serious and continuing frustration is the series of roadblocks for multi-campus and non-matriculated students.** Students should not be bearing the burden of uncoordinated back offices and should not have to juggle multiple registrations, bills and transcripts within the UMS.

Student expectations
eLearners often expect technology to work every time and get frustrated when difficulties arise with eLearning technology. This can be especially frustrating for students working with online courses on the weekend and require access to technical support (Gilbert, 2002).

Limited weekend technical support or support services offered by work-study students would assist those students with difficulties during non-standard hours. As more online courses develop, the information services demands of students and faculty

alike will rise. Other areas of dissatisfaction typically include faculty response time, turn-around time of submitted work, poor usability of technology, and access to learning resources, and work scheduling.

Costs of eLearning to students
The price of eLearning is not entirely composed of charges associated with the bill a student receives from his or her university. Practical costs of eLearning that are often absorbed entirely by the student include a computer capable of utilizing eLearning technology and the software required for certain courses. For students that do not live on campus, those expenditures include access to the internet. Many professors use specific software, such as the Microsoft Office suite of applications, and expect that students will have the software required to utilize files generated by those computer applications. Software titles necessary for certain classes can cost as much as a decent hardcover textbook for the student versions or as much as several semesters worth of books for the most expensive software. Students with an older computer, or who are without a computer, may find it necessary to acquire a computer capable of meeting the requirements for their online classes. The expenses incurred by students in the form of computer hardware, software, and internet access remain consequential factors for students considering eLearning in the form of online courses. The hidden financial impact to students will affect those with low incomes the most. Future endeavors into eLearning should consider the impact of hidden costs to students.

<div align="center">References</div>

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Appendix D

Areas of Faculty Work Impacted by
Teaching Through Technology

The following list is of faculty work directly impacted (most often increased) due to the use of technology. Note that activities (few as they are) not directly impacted by the use of technology, are not listed here. The list is generated in an ongoing effort to identify issues that are significant in terms of the impact of technology upon the working conditions of faculty members engaged in teaching and program development, advising, scholarship including research, provide community and university services. The list is intended to facilitate a preliminary review.

Addressing these items can be accomplished by identifying them as matters of i) individual responsibility; ii) contractual obligations and iii) matters of institutional policy and governance.

Addressing these concerns requires a multiplicity of methods. Some can be addressed through normal processes of academic supervision and governance. Some require the development or modification of university and/or System policy. Others could be addressed through contract negotiations and/or by a separate agreement with AFUM on education and technology.

It is clear that these issues impact more university staff than single or collective faculty members. They are relevant because they impact directly upon the accomplishment of effective and successful instruction. Student learning conditions are not separate from faculty working conditions.

Area I: TEACHING AND CURRICULUM DEVELOPMENT
1. **Course and Program Development and Maintenance**
    a. Collaborate with full time program peers to develop, assess and sustain program using computer based and online tools.
    b. Collaborate with faculty teaching sections of assigned courses, within discipline and cross campus curriculum developers
    c. Maintain knowledge of novel course content media (e-texts, parallel learning management systems, object repositories, CDs etc. and how to purchase, rent, acquire technical support for and address issues of alternative vendors.
    d. Design courses and media including website to include content, activities and utilization of technologies and online resources.
    e. Develop and conduct continuous course assessments using multiple specific assessment software tools.

1b. Course and Program work items (continued)

f. Maintain and use familiarity with course content and professional guidelines shaping the content.

g. Collaborate (electronically) with instructional design, instructional materials vendors, tech support, course mentors and advising personnel contributing to courses and programs.

h. Maintain in course embedded assessment activities

i. Maintain course specific data archives (grades, websites, learning objects etc.)

2. **Direct Instructional Responsibilities** (aka working directly with students in courses)

a. Manage collective tasks (grading, outreach/retention, academic integrity, online discussions, group work etc. directly related to class size

b. Prescribe and maintain level of interactivity/engagement and presence* using websites, email and other communication media.

c. Work with in class students (not advisees) seeking assistance with technology related problems and difficulties accessing out of class technical support personnel.

d. Provide reasonable technology mediated accommodations to disabled students

Madernecht, B.Jean et al (2006)

Area II: ADVISING

1. Tasks impacted

a. Management of MaineStreet and Learning Management Systems

b. Management of Advising E-mail, phone, virtual chat, etc.

c. Advising office hours

d. Management of Multi-campus Students

e. Retention/outreach activities

f. Distance collaboration with advising units at sites, centers and campuses

g. Participating with student advising staff on behalf of Multi-Campus Students

i. Scope of advising

a) Awareness of Student Needs and Advising Resources

a. Adequate Staffing for Technology Support

b. Reasonable Access to Internet

c. Competency with relevant advising tools (MaineStreet etc.)

d. Understanding of reasonable accommodations for student with learning, sensory or movement related disabilities

Area III: SCHOLARSHIP AND RESEARCH
1. Maintain awareness of (increased) online journals, associations, forums, webinars etc. within the area of scholarly expertise.
2. Contribute and provide leadership to sources noted above.
3. Conduct (through technological means) collaborative and student research including the use of online environments.
4. Collaborate externally with colleagues within the disciplines on professional activities.

Area IV: COMMUNITY SERVICE
5. Utilize technologies to maintain familiarity with, network with and provide assistance to agencies etc.

Area V: PROFESSIONAL DEVELOPMENT AND OTHER WORKPLACE CONCERNS
Maintaining Educational and Discipline Specific Expertise
1. Develop and maintain necessary digital literacy and social networking skills
2. Maintain content knowledge of discipline using technology
3. Familiarity with discipline (and textbook) specific hardware and software tools as well as discipline specific social networking, learning object repository and online resources.
4. Identifying and incorporating discipline specific best practices for instruction using technology

Other Workplace Concerns
5. Privacy and Appropriate Supervision, Review & Surveillance
6. Obtain and utilize required technical and instructional support
7. Maintaining expertise with learning platforms and instructional materials
8. Affiliating with Disciplines at a Distance
9. Adequate Support Staff Competency
10. Continued Opportunities for Enhancing Digital Literacy
11. Comprehend and manage intellectual property obligations
    a. Scope and Definitions (Instructional Materials, Course, Programs, Source Codes)
    b. Protection of Intellectual Property

October 2008: A Representative List of AFUM's Concerns Related to Teaching through Technology

Executive Summary

The following are a preliminary list of "talking points" related to TTT. The Joint UMS-AFUM Teaching Through Technology (TTT) Committee recognized these concerns and concludes that they extend well beyond the charge of this group. The fundamental interest of AFUM related to TTT is with respect to both working conditions and the role of the full time faculty. The impact of technology upon workload and working conditions is immense. There is ample evidence to support the assertion that the conversion to the "eLearning paradigm" (S. Waterhouse, 2005), has accelerated and the impact upon the faculty role and workload has yet to be addressed collaboratively.

These talking points do not reflect the full range of concerns and are not inclusive of those specific to single institutions or disciplines. Thematically, they are;

I. The lack of faculty inclusion in information system development and eLearning planning at the System level. The net result of the occurrence has been role strain and significant erosion of the role of full time faculty.

II. Changes in the process of curriculum planning and delivery related to TTT have made it necessary to reaffirm the role of the full time faculty.

III. Changes in the nature of a course and the means of course delivery have resulted in significantly expanded faculty workload without there being an articulated minimal standard of instructional support

Discussion and Recommendations: It is a daunting task to comprehend the nature of current TTT instructional activity or the unanticipated consequences of these innovations. This summary of concerns does not include a complete set of recommendations and thus the need to establish a collaborative approach to address these problems. A first step could be to acknowledge that these problems exist. By way of preliminary recommendations, the following suggestions are offered:

I. Acknowledge that these problems do exist and commit to addressing them with clearly defined strategies.

II. Establish a formal process of eLearning strategic planning not limited to distance learning. Compile relevant plans for every institution. Develop a System level plan.

III. Conduct a study of faculty workload specifically exploring the consequences of the adaptation of learning platforms and other essential technologies.

IV. Reconsider the current metrics of faculty workload. Establish System wide benchmarks with respect to maximum levels of instructional capacity.

**October 2008: A Representative List of AFUM's Faculty Concerns
Related to Teaching through Technology**

Introduction: The following are a preliminary list of "talking points". This meeting has been in the making for many months, if not years. The Joint UMS-AFUM Teaching Through Technology (TTT) Committee (formerly the Distance Education Committee) has discussed these concerns and recognized that they extend well beyond the charge of this group. The committee has been in existence for at least 10 years and has made significant contributions; 1) recognizing that teaching through technology most often increases faculty (and student workload); 2) developing a course typology; and 3) implementing an approach to compensation for ITV instruction.

The fundamental interest of AFUM is with respect to both working conditions and the role of the full time faculty. The impact of technology upon both of these is immense. There is ample evidence to support the assertion that the conversion of teaching and learning into the "eLearning paradigm" (S. Waterhouse, 2005), even though it is at least 20 years in the making, has accelerated and has not adequately included collaboration between faculty and System level administrators.

This document does not address the history of teaching through technology within UMS. Let it suffice to say that only now are serious discussions getting underway to collaborate with faculty at the System level with respect to the system wide "virtual learning environment" (aka Blackboard, MaineStreet, etc.). What began as local classroom teaching with supplemental use of media then evolved as "distance learning". The distance learning paradigm/era coincided with the System's investment in the ITV system and local efforts to develop information systems that include academic computing capabilities. During the past five to ten years, paralleling the ascendancy of Web2.0 (online social networking) and Blackboard as the dominant LMS (learning management system), nationally and globally eLearning has become an almost ubiquitous paradigm within higher education.

The following list of themes and more specific talking points. These are intended to serve as indicators or issues needing to be addressed minimally through action planning. These have been drafted after lengthy consultations with faculty across the System. They do not reflect the full range of concerns and not those specific to a single institution or discipline.

IV. Information System Development: eLearning planning and the role of FT faculty
- minimal involvement of faculty in implementation of MaineStreet and Bb 8.0
- lack of study of faculty prerogatives in online curriculum development and scheduling.
- The absence of collaborative System level strategic planning for teaching and learning in a virtual environment.
- The absence of faculty engagement with respect to transfer of credits for online courses.

V. Curriculum development challenges specific to TTT
- "Hybrid courses" – workload (and credit equivalence) issues
- Outsourcing curriculum within and beyond UMS and the role of full time faculty.
- Campus specific problems determining online class offering and enrollment sizes.
- The assumption of equivalence problem: faculty offer courses online instead of in a classroom
- 'Inadvertent pirating' of online student enrollments and the role of the faculty forging agreements and managing online competition within disciplines across institutions

October 2008: A Representative List of AFUM's Concerns
Related to Teaching through Technology

- full time faculty supervision of adjunct faculty's online course development and delivery
- The challenge of faculty technical literacy and the absence of a System wide minimal standard of instructional support.
- Copyright, privacy and control issues related to instructional material developed for online courses

VI. **Instructional capacity: expanding faculty workload and unintended consequences**
- campus specific compensation schemes for online courses widely vary and have yet to be negotiated per the AFUM contract.
- the TTT course typologies is largely outdated and not recognized throughout the UMS
- workload expansion continues with online coursework (the 24/7 faculty member)
- compensation programs for hybrid courses remain to be defined

Discussion and Recommendations

For most, including members of the Joint UMS – AFUM Committee, it is a daunting task to comprehend either current TTT instructional activity or the unanticipated consequences of these innovations. The digital divide within the academic community has increased steadily. Many individuals have not even heard of "eLearning" while others are painfully aware of the rapid and patchwork nature of these developments. It is because of this pattern of fragmentation that many in the global eLearning community have invested in more learning centered developments of information systems and articulation of "eLearning strategic plans".

This summary of concerns does not include a prescriptive set of recommendations and hence the need for a collaborative and systematic approach to addressing these problems. A first step could be to acknowledge that these problems exist. It is clear that "role strain" is, to varying degrees, pandemic among UMS faculty. It's clear that significant attrition rates may be related to the rapid conversion to the eLearning paradigm. In response to this role strain, a range of adaptive behaviors have been employed by faculty, many of which are not optimal. By way of initial recommendations, the following suggestions are offered:

I.   Acknowledge that these problems are significant and do exist. Commit to addressing them with clearly defined strategies.

II.   Establish a formal process of eLearning strategic planning not limited to distance learning. Compile relevant plans for every institution. Develop a System level plan.

III.   Conduct a study of faculty workload specifically exploring the consequences of the adaptation of learning platforms and other essential technologies.

IV.   Reconsider the current metrics of faculty workload. Establish System wide benchmarks with respect to maximum levels of instructional capacity.

Appendix E

Exemplary Models and Standards

NEASC Standards relating to distance learning
http://cihe.neasc.org/downloads/POLICIES/Pp27C_Guidelines_for_the_Review_of_Off-Campus_and_Distance_Programming_during_a_Comprehensive_Evaluation.pdf

http://cihe.neasc.org/downloads/POLICIES/Pp90_Best_Practices_for_Elect._Off._Degree_Cert._Prog.pdf

Models of eLearning Strategic Plans and Budgets
Wills, Sandra and Bowles, K. (2007) An evolutionary approach to strategic planning for eLearning, University of Wollongong, Australia, www.eli.elc.edu.sa
AND Strategic Planning for Blended Learning (2006)

Westhills Community College District. eLearning Strategic Plan (2000 – 2005)

D. Nicol and M. Cohen, "A Model for Evaluating the Institutional Costs and Benefits of ICT Initiatives in Teaching and Learning in Higher Education," *Association of Learning Technology*

Examples of annual faculty eLearning and teaching surveys
University of South Carolina - Assessing Faculty's Technology Needs By Tena B. Crews, Jessica L. Miller, and Christine M. Brown
http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/AssessingFacultysTechnologyNee/192969

Univ. of Washington Annual Faculty and Student Surveys
http://www.washington.edu/oea/pdfs/reports/OEAReport0601.pdf
Summary of 2005 results:
http://www.washington.edu/lst/research_development/papers/2006/edtech_2005report/
University of Washington Faculty Survey
http://net.educause.edu/ir/library/pdf/EDU05203C.pdf

Penn State University – Competencies for Online Teaching Success
http://psuwcfacdev.ning.com/group/cotscompetenciesforonlineteachingsuccess

Bringham Young University Faculty Perceptions of Technology Projects
http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/FacultyPerceptionsofTechnology/162276

ECAR Valparaiso University TLTR Annual Faculty Survey
http://physics.valpo.edu/publicsurvey/survey.html

Advanced eLearning faculty development and assessment (from the University of Central Florida and Sloan-C)

C. R. Graham and R. Robison, "Realizing the Transformational Potential of Blended Learning: Comparing Cases of Transforming Blends and Enhancing Blends in Higher Education," in *Blended Learning: Research Perspectives*, A. G. Picciano and C. D. Dziuban, eds. (Needham, Mass.: Sloan Consortium, in press).

Appendix F

Recommendations for System Level Collaboration

T4 proposes the following for consideration:

A. All campuses of the University of Maine System should operate according to a common, "System" schedule. Collaboration is essential in order to make the System sustainable, and different schedules compromise the ability of students to take courses from different campuses in a given semester. All campuses have adjusted to their individual schedules, and may have created special programs to fit their schedules, but we believe these can be refitted into a common schedule.

B. We suggest developing a three semester yearly schedule, so the University of Maine can be operational throughout the year. All faculty would be expected to work during the Fall semester in order to propel department/college/university planning, but departments and faculty would decide who would be working during Spring and Summer semesters. This seems to be a necessary development if we really are interested in offering degrees which can be obtained in three years.

C. The University's PolyCom/Compressed Video system needs to be aimed more at academic uses at all System campuses. PolyCom classes should be easy to offer from any one campus to all other campuses/learning centers. Teaching/taking a PolyCom class is probably the easiest way to introduce faculty/students to System collaboration, but the size of broadcast rooms needs to be enlarged.

D. The development of a statewide (and beyond) system of PolyCom/internet courses/majors is badly needed. Students in several areas of the state really do not have access to a full range of majors at their regional campuses.

E. A representative System wide consortium should foster the development of collaborative degrees in the System, utilizing existing system faculties where appropriate. Potentially, this might involve the creation of some "System" degrees. Hiring of new faculty should be guided by System needs in addition to the needs of individual campuses. We are aware that some of these changes might require NEASC approval. These consultations are currently underway.

F. Additional development must also be done so as to better use MaineStreet within an overall System information infrastructure.

G. E-tuition should be established for internet courses, and should be little more than "in-state" tuition, which is an increasingly dated proposition.

Appendix G

About The Teaching Through Technology Task Force

T4 was initiated by Chancellor Pattenaude, in February of 2010. The charge of the group is to study issues related to teaching through technology. This focus was refined to address three key questions. Can a University of Maine System vision of eLearning* be articulated as a common reference point for members of the higher education community? What impact has teaching through technology had upon the work of faculty members? And, what impact has learning through technology had upon students and their learning?

Task Force Charge from Chancellor Pattenaude

The Task Force charge is to engage in a collaborative and systemic review of the current and future state of teaching through technology in the University of Maine System. This will include issues such as the impact of eLearning on faculty development related to technology and pedagogy; assessment and metrics including course evaluations; the faculty role in curriculum and governance; future needs for the UMS technology infrastructure; student needs and preferences; impact on enrollment and retention, including the potential for enrollment growth; and UMS's strategic vision for the role of teaching through technology.

In studying these issues the Task Force will consider models from other universities and university systems to assess best practices and future directions, recognizing that in a rapidly evolving situation current technology, organizational models, policies and practices may rapidly become outdated

The Task Force is composed of 10 members and three liaison experts from the System Office. Four T4 members were appointed by the Chancellor, four by the President of AFUM, one was designated by the Faculty Representatives to the Board of Trustees, and one by the Student Representatives to the Board of Trustees. The technology liaison, researcher and task force facilitator also have made critical contributions to the work of the task force.

Teaching Through Technology Task Force
Membership

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Appendix H

A Comprehensive Listing of T4 Recommendations

T4 recommends that UMS:

Engagement and Collaboration

1. Encourage administrative groups to set aside time for briefings on essential elements of an eLearning vision.

2. Increase the visibility of pedagogy on the System level academic agenda.

3. Explore with Maine's Department Education opportunities for K-16 collaboration focused upon eLearning.

4. Initiate a process of establishing eLearning as an integral part of UMS curricula, with distinctive economic resources dedicated to its diffusion as it may best serve the curricula.

5. Improve opportunities for UMS faculty and learners to identify best practices within the System.

6. With an eye upon quality curriculum as the over arching value, support collaboration between faculty and external eLearning resources locally, nationally and globally (e.g. contact eLearning associations, consortia and vendors external to the System).

7. Support campus and discipline specific eLearning initiatives. Complete a set of campus focus groups to assess the understanding and interest of stakeholders and the current status of local eLearning development from multiple perspectives.

Planning

8. Complete the identification of organizational units actively engaged in developing eLearning within UMS.

9. Complete a report on the state of eLearning within UMS. This report would consider organizational units, plans and standards and System wide consortium efforts as well as units and initiatives at the campus, System, state and higher education community levels.

10. Affirm eLearning as a formal element of strategic planning at the campus and System levels. Indicators within these plans could include specific indicators and benchmarks for improved eLearning and eTeaching.

11. Expand current fiscal and human resources to support the development of eLearning opportunities within the universities.

12. Identify or create UMS structures and policies that support, incentivize and coordinate collaboration between faculty at UMS campuses.

Research
13. Complete two studies about the impact of eLearning upon a) the work of faculty; and b) the learning of students. These studies could use i) survey; ii) campus focus groups; and iii) online forum methods.

14. Complete the identification of a set of exemplary or peer institutional practices. Consider developmental models of best practices, supports and assessment activities

Vision Related Recommendations
15. Gather additional data to both map out the campus level landscapes and to better assess the experience of faculty and students involved in eLearning. For further details related to T4 discussions of developing an eLearning vision, see Appendix C

16. Continue the work of developing a useful, UMS vision of eLearning and eTeaching, to lead to documentation of campus and System level plans.

Student Focused Recommendations
17. Establish a dialogue including students at the campus level concerning eLearning course quality, the development of standards for eLearning, and technology literacy to adequately address the needs of students.

18. Assess the demands of technology on students and work with students to identify best practices in utilizing and assessing eLearning technology. A study is recommended to assess the impact of technology on students and their perceptions of the state of eLearning in Maine's University System.

19. Explore ways to use videoconferencing and other technologies to maximize the satisfaction for students at a distance and augment on-campus advising.

20. Provide technical support or support services offered by knowledgeable work-study students on weekends and evenings to assist students with difficulties during non-standard hours.

Faculty Focused Recommendations
21. Conduct a survey of part and full time faculty similar to those exemplified in Appendix E.

22. Continue to review relevant literature and consultant expertise be obtained to facilitate planning and ways to support continuing efforts of the faculty to utilize technology.

23. Conduct a series of campus based focus groups to gather further faculty recommendations and data that might be useful in developing eLearning strategic plans.

24. Solicit from each campus faculty governance group data and recommendations related to strengthening the practices of faculty teaching through technology.

Investment Recommendations

25. Expand current fiscal and human resources to support the development of eLearning opportunities within the universities. For example, the System Office should seek membership, on behalf of all campuses, in the Sloan Consortium (www.sloanc.org) and Quality Matters (www.qualitymatters.org). These and similar resources can provide substantial assistance to faculty and other UMS community members.

26. Extend the charge of the T4 group for the 2010/11 academic year to continue its work and provide modest resources for carrying out the data collection and dialogue related to the current state of eLearning in UMS and the impact on faculty and learners.

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