IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

TO: The ISU Teaching and Learning Community

FROM: Steering Committee, Learning Ecosystem and Review of Needs (LEARN)

SUBJECT: LEARN Report Response and Recommended Actions

DATE: May 14, 2014

Iowa State University recently engaged a private consultant[1] to conduct an assessment of needs related to its institutional teaching and learning ecosystem. The assessment broadly examined physical and virtual learning spaces and portions of the teaching and learning support structures across the university, with an emphasis on systems that facilitate the effective use of appropriate technologies and their adoption in innovative teaching and learning practices. Between May and November of 2013, and under the guidance of an ISU steering committee and a broad representative committee,[2] the consultant employed a multi-front strategy to gather relevant information and to interactively assess the needs and perceptions of faculty, staff, and administrators. The process included interviews with campus leaders along with interactive workshops, focus groups, and web-based surveys involving faculty, staff, and students. In their 29-page final report[3], the consultants identify several strengths, needs, and challenges that were revealed by their study and provide some general recommendations.

In this memo, the LEARN Steering Committee summarizes key findings and observations that emerged during the assessment process, reviews the general recommendations listed by the consultant, and further recommends a set of specific actions for the university to consider within the larger context of institutional priorities and the forces that drive them.

1. STEERING COMMITTEE'S SUMMARY OF KEY MINDWIRES FINDINGS AND OBSERVATIONS
General Impressions:
- All constituencies value the "high-touch" ISU brand and are committed to maintaining it despite the challenges of enrollment growth, changing demographics, and demands of student learners.
- Faculty are generally supportive of online and blended learning, but there is a prevailing undercurrent of concern regarding the resulting quality of education.
- Most aspects of university operations are stretched to maximum capacity. Each college considers enrollment growth as a principal challenge. Increasing demands on faculty time make it difficult to prioritize innovation in course design, pedagogy, or use of technology.

Physical Learning Spaces:
- Classrooms generally provide adequate technology resources for teaching, but consistency and reliability are common concerns among faculty. Well-defined and clearly stated channels for classroom services support are needed.

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[1] Mindwires Consulting, (http://www.mindwires.com/)
[2] See the ISU LEARN Assessment web page (http://learn.provost.iastate.edu/governance)
[3] MindWires LEARN report, (http://learn.provost.iastate.edu/report)

- Faculty commonly cite difficulties that arise during the class changeover time. While the 10-minute duration may not in itself be problematic, the combination of full-capacity classes and increased use of electronic tools serve to magnify the need for more consistent classroom technology, better faculty training, and standard egress etiquette for students and faculty.
- Full-capacity classroom utilization affords very little flexibility in scheduling. Additional (incremental) gains in efficiency and learning effectiveness may be attainable through better matching of classroom spaces to teaching needs, which will require enhanced information-based schemes for large-scale schedule optimization. These practices will help to maximize the benefit of active learning spaces and other new-concept classroom spaces.
- Active learning spaces and corresponding approaches are valued, but strategic implementation requires accounting for the demands of increasing enrollments due to the lower density seating inherently involved, along with better matching of classroom capabilities to faculty demand.

Virtual/Electronic Learning Spaces:
- Use of the Learning Management System[4] (LMS) is broad but shallow, and faculty indicate a clear preference for reliability over increased flexibility and function. Users, particularly students, expect 100% uptime for systems and networks.
- Students find value in using an LMS and are willing adopters of the LMS environment (>75% reporting daily or more frequent login)[5].

Faculty Support:
- Faculty and students call for increased faculty knowledge related to the use of technology and innovative pedagogy. Video capture was cited specifically as an area where usage could be made more effective.
- Faculty have a strong preference for on-demand support rather than workshop-based training.
- There is a general need for more effective information sharing across the university and among constituency groups.
- Faculty are very satisfied with the quality and professionalism of support provided by ITS and CELT, particularly in the one-to-one format. There is some concern about staffing levels and related timeliness of service.
- For technology issues, faculty are more likely to call on department/college support units before central units.
- Faculty are satisfied with the type of central support that provides prompt problem resolution, but are concerned about staffing levels for proactive services, such as those needed to support online content development or address future ecosystem trends.

Teaching Needs, Concerns, and Trends:
- Faculty report considerable experience in online teaching: 50% for CALS/ENG/CHS and <30% for other colleges. Experience in teaching blended courses is 52% for CHS and <35% across the remainder of the university.

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[4] Iowa State currently licenses and supports Blackboard Learn as a Learning Management System. Data collected outside of this study show that approximately 74% of all ISU course sections maintain a Blackboard Learn course site.

[5] Data collected outside of this study show that, for Spring of 2014, 95% of all students were enrolled in at least one course that utilized a Blackboard Learn course site.

- Faculty are generally receptive to the incorporation of external online course content: 49% use publisher resources, and 60% use open educational resources (self-reported).
- Faculty are not generally taking full advantage of existing LMS capabilities, with only about half reporting usage in areas of collaborative learning and/or class discussion.
- Faculty would like to be better informed about long-term plans and commitments to academic technologies so that they can make more informed decisions about investing their time in the development and integration of technology-enabled teaching practices.
- Students value online lecture content, citing self-paced review as beneficial to learning. However, they also call for standards of quality in online courses, including expectations about updating online content.
- The predominant barriers to faculty with regard to individually adopting online and blended approaches include an unclear connection with stated institutional priorities, insufficient technical knowledge, and a prevailing notion among faculty that these modalities threaten the quality of education.
- Citing flexibility, convenience, and market demand as principal motivators, faculty and students remain largely unaware or unconvinced of the additional motivators for enhanced learning that lie in effective use of online and blended modalities. Despite mounting evidence to support the educational value of these, few cite the enhancement of the learning experience as a principal motivation.

2. MINDWIRES RECOMMENDATIONS
- **Continue and enhance the support and infrastructure for the LMS.** According to campus users, Learning Management System (LMS) ease of use, interoperability, and reliability are the key issues for ISU in the future.
- **Build an academic technology community.** Some community structures already exist, but they don't fully meet the voracious campus desire to share organizational information.
- **Continue the campus discussion about online learning.** Identify a common vocabulary about online learning aspects, and expose the campus to discipline-based examples of online learning from peer institutions.
- **Analyze the need for multimedia support.** Determine the unmet needs for multimedia support and ensure that demands are staffed appropriately. In particular, ISU needs a plan for producing, storing, and using high-quality video.
- **Focus on the 10-minute classroom changeover.** One of the strongest themes to emerge from the study was the concern of faculty that not all pre- and post-class demands could be met in the brief 10-minute period before and after a scheduled class. Increasing technology sophistication and growing enrollment are conspiring to make this problem worse. While not suggesting a change in long-standing class scheduling practices, this recommendation has implications for classroom technology design, standards, and support.

3. STEERING COMMITTEE RECOMMENDATIONS
Based on the MindWires report and interactions with ISU personnel during the review process, the LEARN Steering Committee suggests consideration of the following actions.
Expertise Development
- Build an appropriate level of institutional expertise and communities of practice related to instructional design, delivery, and learning technologies.
- Identify and implement strategies to support faculty in developing blended and online learning approaches that enhance learning in their specific courses.

- Establish ISU standards for excellence in course design and delivery and develop appropriate metrics to recognize effective use and innovative strategies.

Ecosystem logistics
- Establish protocols, technology standards, and policies to streamline the 10-minute changeover period. This includes a statement of expectations for faculty and students in exiting the classroom in a timely manner (e.g. follow-up student questions should be addressed outside the room).
- Examine the classroom scheduling practices and look for any unrealized efficiencies, possibly including:
  o Better matching of facilities to class needs. Expand the number of variables used for assigning classrooms to better match faculty needs. Consider removal of semester to semester "default" scheduling practices, and mitigate unsustainable expectations about class time and location assignments.
  o Make appropriate allowances for custom scheduling and/or classroom sharing to take advantage of hybrid courses, where partial room utilization may be occurring.

Physical and Virtual Infrastructure
- Develop a multi-year comprehensive classroom technology plan, with appropriate staffing identified.
- Identify ways to streamline and simplify classroom support for faculty. Analyze the feasibility of establishing a single help desk for funneling classroom support to appropriate existing service providers.
- Develop a long-term plan for managing third party electronic tools and their integration into campus systems, including the learning management system. Work toward a goal of broad interoperability, which will enable a more flexible electronic learning ecosystem.
- Initiate an analysis of available media asset management systems that can be implemented on campus, and work to identify funding to support the growing number of large online assets, such as videos and other large multimedia files. Provide guidance on how to create optimized files.
- Work to identify the various quality levels and attributes created by the various media capture technologies on campus. Provide accessible documentation regarding specific capabilities and advantages/disadvantages for each available option.

With the submission of the MindWires report and this summary memorandum, the LEARN Steering Committee concludes its business but remains ready to assist with any follow-up activities, as deemed appropriate by the administration.

Respectfully submitted,
LEARN Steering Committee

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