Seminars on Academic Computing
August 7, 2001

Learning Management Systems
Discussion Section—Lois Brooks, Facilitator and Malcolm Brown, Notes

The notes below summarize the discussion in the Learning Management Systems discussion group. The meeting was comprised of a short introduction of the topic, followed by participant discussion in four topical areas related to the management of learning technology.

Introduction
Learning management systems are frequently discussed from several points of view: technology needs and constraints, pedagogical needs and possibilities, and the state of the marketplace. Many discussions have been about what learning management should be, ranging from robust content management to pedagogically active support, e.g., customizable simulations to solid integration with authentication and enterprise environments.

In this session we’ll take a management point of view, making a shared decision about what learning management means, identify key trends and dependencies, and when looking from the unique focus of a university executive (as opposed to a learner, a teacher, or a support staff).

The conversation focused in four discussion areas:

1. The environment: What are the initiatives and trends at your school that related to the learning management environment you must support, and what key requirements in a learning management system will they necessitate. E.g., extended/professional education, distance education, systemic online course development like MIT’s Open Courseware initiative.

2. The problem: How does the definition of learning management extend beyond the traditional class? Does the underlying technology support other academic needs. E.g., content distribution, advising, tutoring, community group support, alumni

3. Existing infrastructure and experience: What parallels can we find between administrative computing systems and learning management needs?

4. The outcome: Five years from now, how do we know that we’ve been successful? How do we define good enough? The 80% solution? Defining and overcoming show stoppers like ADA support, basic administrative tools.

1. The environment: What are the initiatives and trends at your school that related to the learning management environment you must support, and what key requirements in a learning management system will they necessitate. E.g., extended/professional education, distance education, systemic online course development like MIT’s Open Courseware initiative.

- Increase enrollment with no new buildings
- Students are demanding an LMS
- Need to comply with standards; accessibility requirements are increasing
- Faculty expectations are increasing
- Reuse of content (metadata implied) is expected….intellectual property issues
- Networked inter-institutional collaborations, e.g., via I2
- Funding mandates tied to teaching requirements
- LMS “du jour” has lead to a need for standardization
• Need to incorporate new media—growing recognition that print-based media are not sufficient, and that all types of materials need to be tied together.
• Diverse communities, esp. hard to share tools.
• What is a classroom? New expectations from faculty that students see materials, online announcements, etc., between class sessions.
• Customization for individual students
• Cross-platform issues
• Large scale transformations of curricula
• Greater engagement with extended communities
• Expectations for a portal—Linking the “boxes”—No silos!

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• New and extended participants in teaching; advising and tutoring
• Integrating internships, service learning, experiential learning
• Post-course access to materials and coursework needed
• Ongoing (life long) learning
• What is a course? Increasing number of courses taught by a series of faculty; access to content needed across courses. What do we do with all the materials?
• Problem based learning spanning courses
• E-Portfolios for students, faculty, alumni, staff
• Communities across distances—how do we build effective virtual communities?
• Creating pockets of academic interest
• Student services need to change; teaching students to use instructional technology and digital resources
• Teaching vs. learning—Is there a difference? Does access to video lectures, for example, help students learn better?
• Degree vs. certificate programs; efficacy of LMS may vary.
• Successful learning may defined by successful ability to enter the workplace
• Access; accessibility; learning differences are recognized and must be addressed
• Self-assessment needed to help students know if they’ve grasped materials.
• Teaching how to learn—used to mean knowing how to use the library, but now it’s extended to successfully finding and using online resources.
• Outcome assessments

3. Existing infrastructure and experience: What parallels can we find between administrative computing systems and learning management needs?
• High cost and investment of moving out of legacy systems
• Need for interoperability across components; are components sustainable?
• LMS are getting bigger
• Mission critical (7x24x365), backup, authentication and authorization, event driven, security
• Difficulty in “changing gears” once a system is in place
• Data standardization needed: common data elements, language, standards
• Industrial strength applications needed, e.g., centralized authentication scheme
• Administrative vis a vis learning management system continuity: distinction between two may diminish
• Storage across generations, consolidated into central archives. Data types may be more complex than in admin systems.
• Complexity in layering: database:server:user
• Re-engineering processes is often more difficult than building systems. What processes must be engineered in learning management?
• Other professionals, e.g., librarians, must be involved
• Standards to enable “snap in” of components
• Shadow systems—they’ll be developed.
• There may be a reluctance for universities and colleges to spend money on LMS if it’s too different from the administrative systems.
• If good, it allows customization
• Difference: cultures and engagement of use and users

4. The outcome: Five years from now, how do we know that we’ve been successful? How do we define good enough? The 80% solution? Defining and overcoming show stoppers like ADA support, basic administrative tools.

• Is it used, e.g., email?
• There is a student “product”
• There is registration in online courses and intercampus courses. The distinction between traditional and technology enhanced courses is fuzzed or lost.
• Goals and challenges have changed from those we discussed today
• Outcomes; assessment (Can this be done? How?)
• Post graduation access is achieved; recent graduates have expectations of staying connected with the LMS
• Faculty can’t get enough of the LMS
• By which criteria are we judging success?
• We no longer need to pose the questions of whether we’ve been successful
• Have we been able to reach new kinds of students?
• Need for incentives to use the system goes away
• Creativity has not been sacrificed
• The implementation has demonstrated cost benefit
• “Just in case” material doesn’t go away
• The system is being used by administrative and other groups
• We need to establish goals so we know if we’ve been successful